

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: June 15, 2001, 12:11:55 ; Search time 23.78 seconds
(without alignments)
1157.252 Million cell updates/sec

Title: US-09-284-100-2
Perfect score: 1125
Sequence: 1 MKWILTHCASAPPHLPGCC.....GQTRKNTSAHFLPMVHVS 208

Scoring table:
BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 425026 seqs, 132305027 residues
Total number of hits satisfying chosen parameters: 425026

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

- Database : SPTREMBL16.*
- 1: sp_archaea.*
 - 2: sp_bacteria.*
 - 3: sp_fungi.*
 - 4: sp_human.*
 - 5: sp_invertebrate.*
 - 6: sp_mammal.*
 - 7: sp_mhc.*
 - 8: sp_organelle.*
 - 9: sp_phage.*
 - 10: sp_plant.*
 - 11: sp_rodent.*
 - 12: sp_unclassified.*
 - 13: sp_vertebrate.*
 - 14: sp_virus.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1046.5	93.0	213	6 Q9N1B9	Q9n1b9 ovis aries
2	932	82.8	212	13 Q42407	Q42407 gallus gall
3	473.5	42.1	194	6 P79150	P79150 canis fami
4	467.5	41.6	194	6 Q9N198	Q9n198 sus scrofa
5	441	39.2	170	4 Q9HCT0	Q9hct0 homo sapien
6	440.5	39.2	185	11 Q9ERN5	Q9ern5 rattus norv
7	437	38.8	162	11 Q9ESS2	Q9ess2 mus musculu
8	321	28.5	207	11 Q9ERQ5	Q9erq5 mus musculu
9	313	27.8	207	11 Q9ESL8	Q9esl8 mus musculu
10	309	27.5	129	4 Q60371	Q60371 mus sapien
11	308	27.4	211	4 Q9NFP5	Q9nfp5 homo sapien
12	307.5	27.3	208	13 Q9PVI1	Q9pvi1 xenopus lae
13	305	27.1	212	11 Q9ESL9	Q9esl9 mus musculu
14	302	26.8	212	11 Q9EST9	Q9est9 rattus norv
15	281.5	25.0	97	4 Q9NSJ0	Q9nsj0 homo sapien
16	257	22.8	243	13 Q9W6A1	Q9w6a1 gallus gall
17	256.5	22.8	191	13 Q9DFC9	Q9dfc9 brachydani
18	254	22.6	245	13 Q9W6A2	Q9w6a2 gallus gall
19	251	22.3	192	11 Q9ERW3	Q9erw3 rattus norv

20	251	22.3	199	13 Q9IAI3	Q9iai3 gallus gall
21	248	22.0	192	4 Q95830	Q95830 homo sapien
22	245.5	21.8	196	13 Q9YH31	Q9yh31 notophthalm
23	244	21.7	181	13 Q9IAI7	Q9iai7 gallus gall
24	242.5	21.6	206	13 Q9YCD8	Q9ycd8 oncorhynch
25	242	21.5	127	4 Q99517	Q99517 homo sapien
26	238	21.2	73	6 Q97573	Q97573 sus scrofa
27	219.5	19.5	770	5 P91672	P91672 drosophila
28	219.5	19.5	770	5 Q9VDT9	Q9vdt9 drosophila
29	213.5	19.0	252	11 Q89096	Q89096 rattus norv
30	213.5	19.0	253	13 Q9IAI5	Q9iai5 gallus gall
31	212	18.8	237	13 Q9IAI6	Q9iai6 gallus gall
32	208	18.5	74	6 Q77561	Q77561 oryctolagus
33	203	18.0	130	6 Q77767	Q77767 canis fami
34	203	18.0	196	4 P78443	P78443 homo sapien
35	201	17.9	425	5 Q76831	Q76831 caenorhabdi
36	200	17.8	170	11 Q60487	Q60487 cavia porce
37	196	17.4	163	11 Q9JHL9	Q9jhl9 mus musculu
38	177	15.7	108	6 Q9NLS7	Q9nls7 capreolus c
39	177	15.7	227	13 Q9DDN0	Q9ddn0 gallus gall
40	174	15.5	106	6 Q9NLS8	Q9nls8 capreolus c
41	171	15.2	101	13 P79706	P79706 cynops pyrr
42	170.5	15.2	87	13 Q9PTV9	Q9ptv9 oryzias lat
43	170.5	15.2	87	13 Q9PTV8	Q9ptv8 oryzias lat
44	168	14.9	97	6 Q9NOK6	Q9nok6 sus scrofa
45	166	14.8	212	13 Q9DE51	Q9de51 ambystoma m

ALIGNMENTS

RESULT 1

Q9N1B9 ID Q9N1B9 PRELIMINARY; PRT; 213 AA.

AC Q9N1B9;

DT 01-OCT-2000 (TREMBLrel. 15, Created)

DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)

DT 01-MAR-2001 (TREMBLrel. 16, Last annotation update)

DE FIBROBLAST GROWTH FACTOR 10.

GN FGF-10.

OS Ovis aries (Sheep).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;

OC Bovidae; Caprinae; Ovis.

OX NCBI_TaxID=9940;

RN [1]

RP SEQUENCE FROM N.A.

RC TISSUE-ENDOMETRIUM FROM DAY 15 PREGNANT UTERUS;

RA Chen C., Spencer T.E., Bazer F.W.;

RT "Fibroblast growth factor 10: a stromal mediator of epithelial function in the ovine uterus and conceptus."

RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.

DR EMBL; AF213396; AAF25944.1;

DR InterPro: IPR002209;

DR InterPro: IPR002348;

DR Pfam: PF00167; FGF; 1.

DR PRINTS; PR00263; HBGFFGF.

DR PRINTS; PR00262; IL1HBGF.

DR PROSITE; PS00247; HBGF_FGF; UNKNOWN_1.

DR SMART; SM00442; FGF; 1.

SQ SEQUENCE 213 AA; 23768 MW; C347149A81C15634 CRC64;

Query Match 93.0%; Score 1046.5; DB 6; Length 213;
Best Local Similarity 94.0%; Pred. No. 2.5e-87;
Matches 202; Conservative 0; Mismatches 4; Indels 9; Gaps 3;

QY 1 MKWILTHCASAPPHLPGCCCFLLFLVSSVPVTCQALGQDMVSPPEATNSSSFSFS- 59
|||||
Db 1 MKWILTHCASAPPHLSG-CCCCFLLLFLVSSVPVTCQALGQDMVSPGATNSSSSSSSS 59
|||||

QY 60 -----PSSAGRHVRSYNHLOGDVRWRKLFSTKTKFLKIEKNGKVGKNCNCPYSILEI 113
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Db 60 SSSVSLPSAGRHVRSYHNLQDVRWKLFSPTKYFLKIE-NGKVGTKKNCYPYSILEI 118
QY 114 TSVEIGVAVKAINSYYLAMNKKGLYSGKFEFNDCKLKERIEBNGYNTYASFNWQHG 173
Db 119 TSVEIGVAVKAINSYYLAMNKKGLYSGKFEFNDCKLKERIEBNGYNTYASFNWQHG 178
QY 174 ROMYVALNGKGAPRRGOKTRRRKNTSAHFLPMVVS 208
Db 179 ROMYVALNGKGAPRRGOKTRRRKNTSAHFLPMVVS 213

RESULT 2
O42407 PRELIMINARY; PRT; 212 AA.
AC O42407
DT 01-JAN-1998 (TREMBLrel. 05, Created)
DT 01-JUN-1998 (TREMBLrel. 06, Last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, Last annotation update)
DE FIBROBLAST GROWTH FACTOR 10.
OS Gallus gallus (Chicken).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
OC Gallus.
OX NCBI_TaxID=9031;
RN [1]
RP MEDLINE=97330690; PubMed=9187149;
RA Ohuchi H., Nakagawa T., Yamamoto A., Araga A., Ohta T., Ishimaru Y.,
RA Yoshiohka H., Kuwana T., Nohno T., Yamasaki M., Itoh N., Noji S.;
RT "The mesenchymal factor, FGF10, initiates and maintains the outgrowth
RT of the chick limb bud through interaction with FGF8, an apical
RT ectodermal factor."
RL Development 124:2235-2244(1997).
DR EMBL; D86333; BAA24945.1; -
DR HSSP; P03968; IBAR.
DR InterPro; IPR002209; -
DR Pfam; PF00167; FGF; 1.
DR PRINTS; PR00263; HBGFFGF.
DR ProDom; PD000831; -; 1.
DR SMART; SM00442; FGF; 1.
SQ SEQUENCE 212 AA; 23631 MW; AB4C0B32C72A0D90 CRC64;

Query Match 82.8%; Score 932; DB 13; Length 212;
Best Local Similarity 84.2%; Pred. No. 6e-77;
Matches 181; Conservative 12; Mismatches 12; Indels 10; Gaps 2;

QY 1 MWKWLTHCASAPFLPGCCCFLLFLVSSVPVTCQALGQDMVSPKATNSSS----- 54
Db 1 MCKWLTHGASAFSLP---CCCLLLFLVSSVPVTCQALGQDMVSPKATNSSSSSSSF 57
QY 55 -SSFSPPSSAGRHVRSYHNLQDVRWKLFSFTKYFLKIEKNGKVGSGTKKNCYPYSILEI 113
Db 58 PSFSPSSAGRHVRSYHNLQDVRWKLFSYNYKFLKIEKNGKVGSGTKKNCYPYSILEI 117
QY 114 TSVEIGVAVKAINSYYLAMNKKGLYSGKFEFNDCKLKERIEBNGYNTYASFNWQHG 173
Db 118 TSVEIGVAVKISNYLAMNKKGVYSGKFEFNSDKLKERIEBNGYNTYASLNKHHNG 177
QY 174 ROMYVALNGKGAPRRGOKTRRRKNTSAHFLPMVVS 208
Db 178 ROMYVALNGKGAKRQKTRRRKNTSAHFLPMVVS 212

RESULT 3
P79150 PRELIMINARY; PRT; 194 AA.
ID P79150
AC P79150
DT 01-MAY-1997 (TREMBLrel. 03, Created)
DT 01-MAY-1997 (TREMBLrel. 03, Last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, Last annotation update)
DE KERATINOCYTE GROWTH FACTOR.
OS Canis familiaris (Dog).

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OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Carnivora; Fissipedia; Canidae; Canis.
OX NCBI_TaxID=9615;
RN [1]
RP SEQUENCE FROM N.A.
RX MEDLINE=96226403; PubMed=8634153;
RA Canatan H., Chang W.Y., Sugimoto Y., Shidaifat F., Kulp S.K.,
RA Brueggemeier R.W., Lin Y.C.;
RT "Keratinocyte growth factor (KGF/FGF-7) has a paracrine role in canine
RT prostate: molecular cloning of mRNA encoding canine KGF.";
RL DNA Cell Biol. 15:247-254(1996).
DR EMBL; U08000; AAB36972.1; -
DR HSSP; P05230; 2AFG.
DR InterPro; IPR002209; -
DR Pfam; PF00167; FGF; 1.
DR PRINTS; PR00263; HBGFFGF.
DR PRINTS; PR00262; IL1HBGF.
DR ProDom; PD000831; -; 1.
DR ProSITE; PS00247; HBGFFGF; 1.
DR SMART; SM00442; FGF; 1.
SQ SEQUENCE 194 AA; 22476 MW; 8B4E56304B8F14D6 CRC64;

Query Match 42.1%; Score 473.5; DB 6; Length 194;
Best Local Similarity 46.9%; Pred. No. 2e-35;
Matches 98; Conservative 38; Mismatches 54; Indels 19; Gaps 6;

QY 1 MWKWLTHCASAPFLPGCCCFLLFLVSSVPVTCQALGQDMVSPKATNSSSSSFS 58
Db 1 MRKWLTLWILPTLLYR-----SCFHIICLVGTISLAC-----NDM-TPEQMATVNC---- 46
QY 59 SPSSAGRHVRSYHNLQ-GDVRWKLFSFTKYFLKIEKNGKVGSGTKKNCYPYSILETSVE 117
Db 47 -SSPERHTRSYDYMEGGDIRVRLFCRTOWYLRIKDRKGVKGTQEMKNSYNIETVA 104
QY 118 IGTVAVKAINSYYLAMNKKGLYSGKFEFNDCKLKERIEBNGYNTYASFNWQHGROMY 177
Db 105 VGIIVAIKGVSEYLLAMNKKGLYAKKEDCNFKLEILLENHYNTYASAKWTHSGGEMF 164
QY 178 VALNGKGAPRRGOKTRRRKNTSAHFLPMV 206
Db 165 VALNGKGVPRGKTKKREKTAHFLPMAI 193

RESULT 4
O9N198 PRELIMINARY; PRT; 194 AA.
ID O9N198
AC O9N198
DT 01-OCT-2000 (TREMBLrel. 15, Created)
DT 01-OCT-2000 (TREMBLrel. 15, Last sequence update)
DT 01-MAR-2001 (TREMBLrel. 16, Last annotation update)
DE KERATINOCYTE GROWTH FACTOR (FRAGMENT).
OS Sus scrofa (pig).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Suina; Suidae; Sus.
OX NCBI_TaxID=9823;
RN [1]
RP SEQUENCE FROM N.A.
RX TISSUE=12 DAYS POST-PREGNANCY ENDOMETRIUM;
RA Ka H., Spencer T.E., Bazer F.W.;
RT "Keratinocyte growth factor: expression by endometrial epithelia of
RT the porcine uterus";
RL Submitted (DEC-1999) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF217463; AAF26734.1; -
DR InterPro; IPR002209; -
DR Pfam; PF00167; FGF; 1.
DR PRINTS; PR00263; HBGFFGF.
DR PRINTS; PR00262; IL1HBGF.
DR ProSITE; PS00247; HBGFFGF; 1.
DR SMART; SM00442; FGF; 1.
NON_TER 194
FT

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SO SEQUENCE 194 AA; 22463 MW; BA449B5B45A731B0 CRC64;

Query Match 41.6%; Score 467.5; DB 6; Length 194;
Best Local Similarity 46.9%; Pred. No. 7e-35;
Matches 98; Conservative 38; Mismatches 54; Indels 19; Gaps 6;

QY 1 MKKWILTHCASFAPHLPCGCCCCCLLLFLVSSVPVTCOALGQDMVSP--ATNSSSSSFS 58
DB 1 MKKWILTHCASFAPHLPCGCCCCCLLLFLVSSVPVTCOALGQDMVSP--ATNSSSSSFS 58
DB 1 MKKWILTHCASFAPHLPCGCCCCCLLLFLVSSVPVTCOALGQDMVSP--ATNSSSSSFS 58

QY 59 SPSSAGRHVRSYHNLQ-GDVRWRKLFSTFKYFLKIEKNGKVSCTKENCPSYLSLEITSVEI 117
DB 47 --SPERHTRSDYMEGGDIRVRLFCRTQWYLRIDKRGKVKGTQEMRNSYNIMEIRTVAV 104
QY 118 IGVAVKAINSYLLAMNKGKLYGSKFENNDCKLKERIEENGYNTYASFNQHNGROMYV 177
DB 105 GVIIVAKGVSSEYLLAMNKGKLYGSKFENNDCKLKERIEENGYNTYASFNQHNGROMYV 177
QY 178 VALNGKAPRRGOKTRKNTSAHFLPMV 206
DB 165 VALNGKAPRRGOKTRKNTSAHFLPMV 193

RESULT 5
Q9HCTO PRELIMINARY; PRT; 170 AA.
ID Q9HCTO
AC Q9HCTO
DT 01-MAR-2001 (Tremblrel. 16, Created)
DT 01-MAR-2001 (Tremblrel. 16, Last sequence update)
DT 01-MAR-2001 (Tremblrel. 16, Last annotation update)
DE FGF-22.
GN FGF22.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Itoh N.;
RT "human FGF-22";
RL Submitted (DEC-1998) to the EMBL/GenBank/DBJ databases.
DR EMBL; AB021925; BAB13479.1;
SQ SEQUENCE 170 AA; 19662 MW; CB88918C2D54A4E7 CRC64;

Query Match 39.2%; Score 441; DB 4; Length 170;
Best Local Similarity 50.3%; Pred. No. 1.5e-32;
Matches 81; Conservative 37; Mismatches 35; Indels 8; Gaps 1;

QY 46 SPATNSSSSSFSPPSSAGRHVRSYHNLQGDVRWRKLFSTFKYFLKIEKNGKVSCTKENC 105
DB 17 APDAAGTPSAS-----RGPRSYPHLGGDVRWRRLFSSTHFFLRVDPGGRVGTWRWR 68
QY 106 CPYSILEITSVEIGVAVKAINSYLLAMNKGKLYGSKFENNDCKLKERIEENGYNTYA 165
DB 69 QDSILEIRSHVGVVIVKAVSGEYVAMNRRGLYSRLYVDCRFRERIEENGHTYA 128
QY 166 SFNQHNGROMYVALNGKAPRRGOKTRKNTSAHFLPMV 206
DB 129 SQWRRRGOMFALDRGGRPRGGRTRRYHLSAHFLPLV 169

RESULT 6
Q9ERN5 PRELIMINARY; PRT; 185 AA.
ID Q9ERN5
AC Q9ERN5
DT 01-MAR-2001 (Tremblrel. 16, Created)
DT 01-MAR-2001 (Tremblrel. 16, Last sequence update)
DT 01-MAR-2001 (Tremblrel. 16, Last annotation update)
DE FGF7/KGF (FRAGMENT).
OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC STRAIN-DARK AGUTI;
RA Choi J.K.W., Gibbins J.R., Hunter N., Lyons J.G., Tazawa M.Y.,
RA Walker D.M.;
RT "Novel CD44 Splice Variants Associated with Changes in Alternative
RT Splicing of FGFR-2 and Expression of FGF-2, FGF-7, E-Cadherin and
RT Snail";
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
FR EMBL; AF295300; AAG31597.1;
FT NON_TER 185
SQ SEQUENCE 185 AA; 21340 MW; 8DBE8364C9222B88 CRC64;

Query Match 39.2%; Score 440.5; DB 11; Length 185;
Best Local Similarity 48.5%; Pred. No. 1.9e-32;
Matches 95; Conservative 35; Mismatches 49; Indels 17; Gaps 7;

QY 1 MKKWILTHCASFAPHLPCGCCCCCLLLFLVSSVPVTCOALGQDMVSP--ATNSSSSSFS 59
DB 1 MKKWILTHCASFAPHLPCGCCCCCLLLFLVSSVPVTCOALGQDMVSP--ATNSSSSSFS 59

QY 60 SPSSAGRHVRSYHNLQ-GDVRWRKLFSTFKYFLKIEKNGKVSCTKENCPSYLSLEITSVEI 118
DB 49 PE---RHTRSDYMEGGDIRVRLFCRTQWYLRIDKRGKVKGTQEMRNSYNIMEIRTVAV 105
QY 119 GVIIVAKAINSYLLAMNKGKLYGSKFENNDCKLKERIEENGYNTYASFNQHNGROMYV 178
DB 106 GVIIVAKGVSSEYLLAMNKGKLYGSKFENNDCKLKERIEENGYNTYASFNQHNGROMYV 178

QY 179 ALNGKAPRRGOKTRR 194
DB 166 ALNGKAPRRGOKTRR 181

RESULT 7
Q9ESS2 PRELIMINARY; PRT; 162 AA.
ID Q9ESS2
AC Q9ESS2
DT 01-MAR-2001 (Tremblrel. 16, Created)
DT 01-MAR-2001 (Tremblrel. 16, Last sequence update)
DT 01-MAR-2001 (Tremblrel. 16, Last annotation update)
DE FGF-22.
GN FGF-22.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RA Itoh N.;
RT "mouse FGF-22";
RL Submitted (JAN-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AB036765; BAB16407.1;
SQ SEQUENCE 162 AA; 18927 MW; 225EF512F4E1BE29 CRC64;

Query Match 38.8%; Score 437; DB 11; Length 162;
Best Local Similarity 51.3%; Pred. No. 3.3e-32;
Matches 77; Conservative 35; Mismatches 34; Indels 4; Gaps 1;

QY 59 SPSSAGRHVRSYHNLQGDVRWRKLFSTFKYFLKIEKNGKVSCTKENCPSYLSLEITSVEI 118
DB 17 APGAPG---GYPHLEGGDVRWRRLFSSTHFFLRVLDGGRVGTWRWRHCOISVIRSVR 72
QY 119 GVIIVAKAINSYLLAMNKGKLYGSKFENNDCKLKERIEENGYNTYASFNQHNGROMYV 178
DB 73 GTWIKAVYSGEYVAMNRRGLYSRLYVDCRFRERIEENGHTYA 132
QY 179 ALNGKAPRRGOKTRKNTSAHFLPMV 208

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Db 133 ALDSOGIPROGRTTRRHHQSTHFLPVLVSS 162

RESULT 8
Q9ERO5
ID Q9ERO5 PRELIMINARY; PRT; 207 AA.
AC Q9ERO5;
DT 01-MAR-2001 (TReMBLrel. 16, Created)
DT 01-MAR-2001 (TReMBLrel. 16, Last sequence update)
DT 01-MAR-2001 (TReMBLrel. 16, Last annotation update)
DE FGF-16 PROTEIN.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=HEART;
RA Sontag D.P., Cattini P.A.;
RT "Cloning and biological function of FGF-16 in the heart.";
RL Submitted (AUG-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AF292104; AAG29501.1; -.
SQ SEQUENCE 207 AA; 23739 MW; E28004DED598A2C6 CRC64;

Query Match 28.5%; Score 321; DB 11; Length 207;
Best Local Similarity 34.6%; Pred. No. 1.4e-21;
Matches 71; Conservative 41; Mismatches 65; Indels 28; Gaps 4;

QY 4 WILTHCASFPHLPGCCCCFLLFLVSVPTCQALGQDMVSPATNSSSSFSPPSA 63
Db 13 WDLQGFSSSLGNVP-----LADSPGFLNERLQO--IEGKLQSGPTDFA----- 54
QY 64 GRHVSYNHLOGDVRWRKLFSTKFKTEKNGKYGSGTKKENCPSYILEITSVEIGVAV 123
Db 55 -----HLKGLIRRRQLYCRGTGFHLEIFPNGTVHGRHDSRFGILEFISLAVGLISI 106
QY 124 KAINSNIYLAAMKKGKLYGSKFNNCKLKERIENGNYNTYASFNNQNG--RQMYVALN 181
Db 107 RGVDSGLYLGMMNERGELYGSKLTRECVFQFEENWYNTYASTLYKXSDSERQYVALN 166
QY 182 GKCAPRGQKTRKNTSAHFLPMV 206
Db 167 KGSPREGYTKRKHQKFTHFLPRPV 191

RESULT 9
Q9ESL8
ID Q9ESL8 PRELIMINARY; PRT; 207 AA.
AC Q9ESL8;
DT 01-MAR-2001 (TReMBLrel. 16, Created)
DT 01-MAR-2001 (TReMBLrel. 16, Last sequence update)
DT 01-MAR-2001 (TReMBLrel. 16, Last annotation update)
DE FIBROBLAST GROWTH FACTOR 16.
GN FGF16.
OS Mus musculus (Mouse).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OX NCBI_TaxID=10090;
RN [1]
RP SEQUENCE FROM N.A.
RA Itch N.;
RT "Mus musculus mRNA for FGF-16 (FGF16).";
RL Submitted (SEP-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL; AB049219; BAB16405.1; -.
SQ SEQUENCE 207 AA; 23751 MW; 68BD03BEDAALD84E CRC64;

Query Match 27.8%; Score 313; DB 11; Length 207;
Best Local Similarity 34.1%; Pred. No. 7.6e-21;
Matches 70; Conservative 40; Mismatches 67; Indels 28; Gaps 4;

QY 4 WILTHCASFPHLPGCCCCFLLFLVSVPTCQALGQDMVSPATNSSSSFSPPSA 63

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Db 13 WDLHGFSSSLGNVP-----LADSPGFLNERLQO--IEGKLQSGPTDFA----- 54
QY 64 GRHVSYNHLOGDVRWRKLFSTKFKTEKNGKYGSGTKKENCPSYILEITSVEIGVAV 123
Db 55 -----HLKGLIRRRQLYCRGTGFHLEIFPNGTVHGRHDSRFGILEFISLAVGLISI 106
QY 124 KAINSNIYLAAMKKGKLYGSKFNNCKLKERIENGNYNTYASFNNQNG--RQMYVALN 181
Db 107 RGVDSGLYLGMMNERGELYGSKLTRECVFQFEENWYNTYASTLYKXSDSERQYVALN 166
QY 182 GKCAPRGQKTRKNTSAHFLPMV 206
Db 167 KGSPREGYTKRKHQKFTHFLPRPV 191

RESULT 10
Q60371
ID Q60371 PRELIMINARY; PRT; 129 AA.
AC Q60371;
DT 01-AUG-1998 (TReMBLrel. 07, Created)
DT 01-AUG-1998 (TReMBLrel. 07, Last sequence update)
DT 01-MAR-2001 (TReMBLrel. 16, Last annotation update)
DE R33683_2.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Lamerdin J.E., McCready P.M., Skowronski E., Adamson A.W.,
RA Burkhardt-Schultz K., Gordon L., Kyle A., Ramirez M., Stillwagen S.,
RA Phan H., Velasco N., Gathes J., Danganan L., Poundstone P.,
RA Christensen M., Georgescu A., Avilla J., Liu S., Attix C., Andreise T.,
RA Truex R., Amico-Keller G., Coefield J., Duarte S., Lucas S.,
RA Bruce R., Thomas P., Quan G., Krommiller B., Arellano A.,
RA Montgomery M., Ow D., Nolan M., Trong S., Kobayashi A., Olsen A.O.,
RA Carrano A.V.;
RL Submitted (MAR-1998) to the EMBL/GenBank/DBJ databases.
DR EMBL; AC004449; AAC06148.1; -.
DR HSSP; P09038; IBFG.
DR InterPro; IPR002209; -.
DR Pfam; PF00167; FGF; 1.
DR ProDom; PD000831; -.
DR SMART; SM00442; FGF; 1.
SQ SEQUENCE 129 AA; 14637 MW; AC6ECC4C9594108C CRC64;

Query Match 27.5%; Score 309; DB 4; Length 129;
Best Local Similarity 55.7%; Pred. No. 1e-20;
Matches 54; Conservative 24; Mismatches 19; Indels 0; Gaps 0;

QY 110 ILEITSVEIGVAVKAINSNYYLAAMKKGKLYGSKFNNCKLKERIENGNYNTYASFNN 169
Db 32 ILEIRSVHGVVVVKAIVSSGFGYVAMNRRGLYGLYVDCRFREREENGHTYASQRW 91
QY 170 OHNGRQMYVALNGKAPRRGOKTRKNTSAHFLPMV 206
Db 92 RRGCPMFLALDRGGPRGGRTRRYHLHSAHFLPV 128

RESULT 11
Q9NP95
ID Q9NP95 PRELIMINARY; PRT; 211 AA.
AC Q9NP95;
DT 01-OCT-2000 (TReMBLrel. 15, Created)
DT 01-OCT-2000 (TReMBLrel. 15, Last sequence update)
DT 01-MAR-2001 (TReMBLrel. 16, Last annotation update)
DE FGF-20 (FIBROBLAST GROWTH FACTOR 20) (FGF-20).
GN FGF-20.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

```

OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=20374469; PubMed=10913340;
 RA Kirikoshi H., Sagara N., Saitoh T., Tanaka K., Sekihara H.,
 RA Shikawa K., Katoh M.;
 RT "Molecular cloning and characterization of human FGF-20 on chromosome
 RT 8p21.3-p22.3;
 RL Biochem. Biophys. Res. Commun. 274:337-343(2000).
 RN [2]
 RP SEQUENCE FROM N.A.
 RA Itoh N.;
 RT "Human FGF-20";
 RL Submitted (JUL-1999) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AB044277; BAB03633.1; -;
 DR EMBL; AB030648; BAB03530.1; -;
 DR InterPro; IPR002209; -;
 DR InterPro; IPR002348; -;
 DR Pfam; PF00167; FGF; 1.
 DR PRINTS; PR00263; HBGFFGF.
 DR PRINTS; PR00262; ILIHGFG.
 DR PROSITE; PS00247; HBGFFGF; 1.
 DR SMART; SM00442; FGF; 1.
 SQ SEQUENCE 211 AA; 23498 MW; AB04608C16060CC1 CRC64;

Query Match 27.4%; Score 308; DB 4; Length 211;
 Best Local Similarity 35.9%; Pred. No. 2.2e-20;
 Matches 65; Conservative 37; Mismatches 67; Indels 12; Gaps 2;
 QY 38 QALGDQVMS-----PEATNSSSSSSPSSAGRHVRSYHNLQGDVVRWKLFSFTK 87
 Db 15 EGLCQQVGSHPFLPPAGERPLIGERRSAERSAARGPGAAHLHLRRRLQYCRGT 74
 QY 88 YFLKIERKNGVSGFKKPCYSILEITSVEIGVVAVKAINSYLLAMNKKGLYGSKEFN 147
 Db 75 FHLQILPDGVSQGTRODHSFLGILEFTSVAGLVSGVINGVDSGLYLGNDKGLYGSKELT 134
 QY 148 NDCKLKERIEENGNTYASFNQOH--NGROMYVALNGKAGPRRGOKTRRKNNTSAHFLPMV 205
 Db 135 SECIFREQFEENWYNTSSNYKHGDTGRTYFVALNKDGTTPDGRGAKRKHQKFTHELPRP 194
 QY 206 V 206
 Db 195 V 195

RESULT 12
 Q9PVI1 ID Q9PVI1 PRELIMINARY; PRT; 208 AA.
 AC Q9PVI1;
 DT 01-MAY-2000 (TrEMBLrel. 13, Created)
 DT 01-MAY-2000 (TrEMBLrel. 13, Last sequence update)
 DT 01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
 DE XFGF-20.
 GN XFGF-20.
 OS Xenopus laevis (African clawed frog).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
 OC Xenopodinae; Xenopus.
 OX NCBI_TaxID=8355;
 RN [1]
 RP SEQUENCE FROM N.A.
 RX MEDLINE=99373151; PubMed=10441498;
 RA Koga C., Adati N., Nakata K., Mikoshiba K., Furuhashi Y., Sato S.,
 RA Tei H., Sakaki Y., Kurokawa T., Shiohara K., Yokoyama K.K.;
 RT "Characterization of a novel member of the FGF family, XFGF-20, in
 RT Xenopus laevis";
 RL Biochem. Biophys. Res. Commun. 261:756-765(1999).
 DR EMBL; AB012615; BAA83474.1; -;
 DR HSSP; P05230; 2AFG.
 DR InterPro; IPR002209; -;
 DR InterPro; IPR002348; -;

DR Pfam; PF00167; FGF; 1.
 DR PRINTS; PR00263; HBGFFGF.
 DR PRINTS; PR00262; ILIHGFG.
 DR PROSITE; PS00247; HBGFFGF; 1.
 DR SMART; SM00442; FGF; 1.
 SQ SEQUENCE 208 AA; 23438 MW; 268881D36E757D4D CRC64;
 Query Match 27.3%; Score 307.5; DB 13; Length 208;
 Best Local Similarity 40.1%; Pred. No. 2.4e-20;
 Matches 63; Conservative 36; Mismatches 49; Indels 9; Gaps 2;
 QY 52 SSSSSPSSAGRHVRSYHNLQGDVVRWKLFSFTKYLKIEKNGKVSQTKKENCPCYSIL 111
 Db 43 SERLSRSAPS-----DLSHLQGLRRRLQYCRGTGHLQILPDGNNVQGTRODHSRFGIL 95
 QY 112 EITSVEIGVVAVKAINSYLLAMNKKGLYGSKEFNNDCKLKERIEENGNTYASFNQOH 171
 Db 96 EFTSVAIGLVSGVDTGLYLGNDKGLYGSKELTSECIFREQFEENWYNTSSNYKH 155
 QY 172 --NGROMYVALNGKAGPRRGOKTRRKNNTSAHFLPMV 206
 Db 156 GDGRRYFVALNKDGTTPDGRGAKRKHQKFTHELPRV 192

RESULT 13
 Q9ESL9 ID Q9ESL9 PRELIMINARY; PRT; 212 AA.
 AC Q9ESL9;
 DT 01-MAR-2001 (TrEMBLrel. 16, Created)
 DT 01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
 DT 01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
 DE FIBROBLAST GROWTH FACTOR 20.
 GN FGF20.
 OS Mus musculus (Mouse).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
 OX NCBI_TaxID=10090;
 RN [1]
 RP SEQUENCE FROM N.A.
 RA Itoh N.;
 RT "Mus musculus mRNA for FGF-20(FGF20).";
 RL Submitted (SEP-2000) to the EMBL/GenBank/DBJ databases.
 DR EMBL; AB049218; BAB16406.1; -;
 SQ SEQUENCE 212 AA; 23659 MW; 174DBCE8915B69EF CRC64;

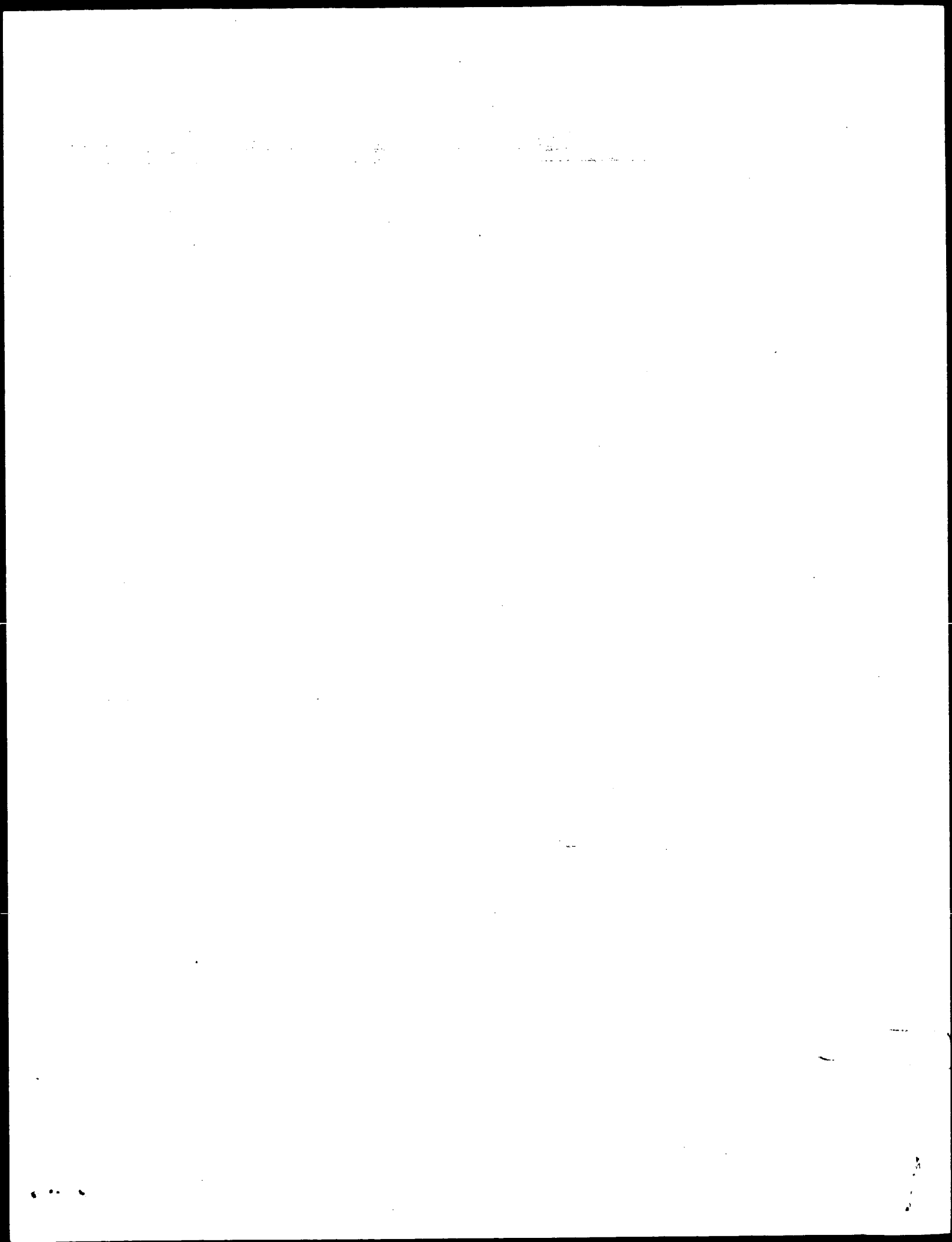
Query Match 27.1%; Score 305; DB 11; Length 212;
 Best Local Similarity 42.3%; Pred. No. 4.2e-20;
 Matches 58; Conservative 34; Mismatches 43; Indels 2; Gaps 1;
 QY 72 HLQGDVVRWKLFSFTKYLKIEKNGKVSQTKKENCPCYSILEITSVEIGVVAVKAINSY 131
 Db 59 HLHGLILRRRLQYCRGTGHLQILPDGTVQGTRODHSFLGILEFTSVAGLVSGVIRGDSGLY 118
 QY 132 LAMNKKGLYGSKEFNNDCKLKERIEENGNTYASFNQOH--NGROMYVALNGKAGPRRG 189
 Db 119 LGMNDKGLYGSKELTSECIFREQFEENWYNTSSNYKHGNTGRTYFVALNKDGTTPDGR 178
 QY 190 QKTRRKNNTSAHFLPMV 206
 Db 179 ARSKRRQRKFTHELPRV 195
 RESULT 14
 Q9EST9 ID Q9EST9 PRELIMINARY; PRT; 212 AA.
 AC Q9EST9;
 DT 01-MAR-2001 (TrEMBLrel. 16, Created)
 DT 01-MAR-2001 (TrEMBLrel. 16, Last sequence update)
 DT 01-MAR-2001 (TrEMBLrel. 16, Last annotation update)
 GN FGF-20.

OS Rattus norvegicus (Rat).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
OX NCBI_TaxID=10116;
RN [1]
RP SEQUENCE FROM N.A.
RC TISSUE=ADULT BRAIN;
RX PubMed=11032730;
RA Ohmachi S., Watanabe Y., Mikami T., Kusu N., Ibi T., Akaike A.,
RT Itoh N.;
RT "FGF-20, a novel neurotrophic factor, preferentially expressed in the
RT substantia nigra pars compacta of rat brain.";
RL Biochem. Biophys. Res. Commun. 277:355-360(2000).
DR EMBL: AB020021; BAB13763.1; .
SQ SEQUENCE 212 AA; 23537 MW; 4F850BEFE772B977 CRC64;

Query Match 26.8%; Score 302; DB 11; Length 212;
Best Local Similarity 42.3%; Pred. No. 7.8e-20;
Matches 58; Conservative 33; Mismatches 44; Indels 2; Gaps 1;
QY 72 HLOGDVRRKLFSTFKYFLKTEKNCKYSGTKKNCPCYSILLETISVEIGVAVKAINSYY 131
DB 59 HLHGILRRRLQYCRGFLQLPDGSGVQGTQDHSFLGILEFISVAVGLVSIKGVDSGLY 118
QY 132 LAMNKKGLYSGKEFNNDCKLKERIEENGYNFYASFNWQH--NGROMYVALNGKGPAPRG 189
DB 119 LGMNCKGELYGSEKLTSECIFREQFEENWYNTYSSNYKKGDTGRRYFVALNKDGTPRDG 178
QY 190 QKTRRKNTSAHFLPMV 206
DB 179 ARSKRHQRFTFLPRPV 195

RESULT 15
QNSJ0
ID QNSJ0 PRELIMINARY; PRT; 97 AA.
AC QNSJ0;
DT 01-OCT-2000 (Tremblrel. 15, Created)
DT 01-OCT-2000 (Tremblrel. 15, Last sequence update)
DT 01-MAR-2001 (Tremblrel. 16, Last annotation update)
DE PRED3 PROTEIN (FRAGMENT).
GN PRED3.
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
OX NCBI_TaxID=9606;
RN [1]
RP SEQUENCE FROM N.A.
RA Hattori M., Fujiyama A., Taylor T.D., Watanabe H., Yada T., Park H.S.,
RA Toyoda A., Ishii K., Totoki Y., Choi D.K., Soeda E., Ohki M.,
RA Takagi T., Sakaki Y., Taudien S., Blechschmidt K., Polley A.,
RA Menzel U., Delabar J., Kumpf K., Lehmann R., Patterson D.,
RA Reichwald K., Rump A., Schillhabel M., Schudy A., Zimmermann W.,
RA Rosenthal A., Kudoh J., Shibuya K., Kawasaki K., Asakawa S.,
RA Shintani A., Sasaki T., Nagamine K., Mitsuyama S., Antonarakis S.E.,
RA Minoshima S., Shimizu N., Nordsiek G., Hornischer K., Brandt P.,
RA Schafie M., Schoen O., Desario A., Reichelt J., Kauer G., Bloeker H.,
RA Ramser J., Beck A., Klages S., Hennig S., Riesselmann L., Dagand E.,
RA Wehrmeyer S., Borzym K., Gardiner K., Nizetic D., Francis F.,
RA Lehrach H., Reinhardt R., Yaspo M.L.;
RL Submitted (MAY-2000) to the EMBL/GenBank/DBJ databases.
DR EMBL: AL163203; CAB90393.1; .
DR InterPro; IPR002209; .
DR InterPro; IPR002348; .
DR Pfam; PF00167; FGF; 1.
DR PRINTS; PR00263; HBGFFGF.
DR PRINTS; PR00262; ILIHGFG.
DR SMART; SM00442; FGF; 1.
FT NON_TER 1
SQ SEQUENCE 97 AA; 10981 MW; 7D7AFFFF320C97E0 CRC64;

Query Match 25.0%; Score 281.5; DB 4; Length 97;
Best Local Similarity 53.6%; Pred. No. 2.3e-18;
Matches 52; Conservative 16; Mismatches 28; Indels 1; Gaps 1;
QY 110 ILEITSVEIGVAVKAINSNNYILAMNKKGLYSGKEFNNDCKLKERIEENGYNFYASFNW 169
DB 1 IMEIRTVAVGIVAIRGVESEFYLAMNEEGKLYAKKECNECDNFKGLILENHYNTYASAKW 60
QY 170 OHNGROMYVALNGKGPAPRGOKTRRKNTSAHFLPMV 206
DB 61 THNGGEMFVALNQKGPVR-KKNEERTKTAHFVPMAL 96
Search completed: June 15, 2001, 12:13:36
Job time: 101 sec



FT	SIGNAL	1	36	POTENTIAL
FT	CHAIN	37	215	FIBROBLAST GROWTH FACTOR-10.
FT	DOMAIN	51	69	POLY-SER.
FT	CARBOHYD	50	50	N-LINKED (GLCNAC. . .) (POTENTIAL).
FT	CARBOHYD	203	203	N-LINKED (GLCNAC. . .) (POTENTIAL).
SEQ	SEQUENCE	215 AA;	24029 MW;	93778EFA6FC0866A CRC64;

Query Match 97.0%; Score 1091.5; DB 1; Length 215;
 Best Local Similarity 95.8%; Pred. No. 9.5e-91;
 Matches 207; Conservative 0; Mismatches 0; Indels 9; Gaps 2;

QY	1	52
QY	1 MKKWLITHCASAFPHLPCCGCCCLLLFLLYSSVPTVTCQALGQDMVSPDATN-----S	52
DB	1 MKKWLITHCASAFPHLPG-CCCCFLLFLLYSSVPTVTCQALGQDMVSPDATN-----S	59
QY	53 SSSSFSPSSAGRHSRVSNNHLLQGDVWRKLFSTFKYFLKIEKKGVSGTKKENCPSYLE	112
DB	60 SSSSFSPSSAGRHSRVSNNHLLQGDVWRKLFSTFKYFLKIEKKGVSGTKKENCPSYLE	119
QY	113 ITSVELGVVYKAINSNYYLAWNKKGKLYGSKFNNCKLKERIEENGYNITYASFNNQHN	172
DB	120 ITSVEIGVVVYKAINSNYYLAWNKKGKLYGSKFNNCKLKERIEENGYNITYASFNNQHN	179
QY	173 GRQMYVALNGKAPRRGQKTRKNTSAHFLPMVVHS	208
DB	180 GRQMYVALNGKAPRRGQKTRKNTSAHFLPMVVHS	215

RESULT 3
 FGFA_MOUSE STANDARD; PRT: 209 AA.

ID	AC	Q35365;
DT	15-JUL-1999	(Rel. 38, Created)
DT	15-JUL-1999	(Rel. 38, Last sequence update)
DT	01-OCT-2000	(Rel. 40, Last annotation update)
DE	DE	FIBROBLAST GROWTH FACTOR-10 PRECURSOR (FGF-10) (KERATINOCYTE GROWTH FACTOR 2).
OS	GN	Mus musculus (Mouse).
OC	OC	Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC	OC	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.
OC	OX	NCBI_TaxID=10090;
RN	RN	[1]
RN	RN	SEQUENCE FROM N.A.
RP	RP	MEDLINE=97473538; PubMed=9332392;
RA	RA	Taqashira S., Harada H., Katsumata T., Itoh N., Nakatsuka M.;
RT	RT	"Cloning of mouse FGF10 and up-regulation of its gene expression during wound healing.";
RL	RL	Gene 197:399-404(1997).
RN	RN	[2]
RN	RN	SEQUENCE FROM N.A.
RC	RC	TISSUE=Lung;
RA	RA	Duan D.R., Florence C.;
EL	EL	Submitted (MAR-1997) to the EMBL/GenBank/DBJ databases.
CC	CC	-!- FUNCTION: COULD BE A GROWTH FACTOR ACTIVE IN THE PROCESS OF WOUND HEALING. ACTS AS A MITOGEN IN THE LUNG. MAY ACT IN A MANNER SIMILAR TO FGF-7.
CC	CC	-!- SUBCELLULAR LOCATION: SECRETED (POTENTIAL).
CC	CC	-!- TISSUE SPECIFICITY: EXPRESSED ABUNDANTLY IN EMBRYOS AND THE LUNG, AND AT MUCH LOWER LEVELS IN BRAIN AND HEART.
CC	CC	-!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.

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EMBL; D89080; BAA2836.1; -
 EMBL; U94517; AAD00761.1; -
 DR DR

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EMBL; 222703; CA80403.1; -
EMBL; U58503; AAB01343.1; -
PIR; S33227; S33227.
HSP; P09038; 2BFH.
MGD; MGI:95521; Fgf7.
InterPro; IPR002209; -
InterPro; IPR002348; -
Pfam; PF00167; FGF; 1.
PRINTS; PR00262; ILLHGF.
PRINTS; PR00263; HBGFGF.
PROSITE; PS00247; HBGF_FGF; 1.
Growth factor; Mitogen; Signal.
SIGNAL 1 31
CHAIN 32 194
CARBOHYD 45 45
SEQUENCE 194 AA; 22347 MW; 805C30D4B1D27C73 CRC64;

BY SIMILARITY.
KERATINOCYTE GROWTH FACTOR.
N-LINKED (GLCNAC...) (POTENTIAL).

Query Match 42.8%; Score 481.5; DB 1; Length 194;
Best Local Similarity 47.8%; Pred. No. 3.2e-36;
Matches 99; Conservative 39; Mismatches 54; Indels 15; Gaps 6;

1 MKWILTHCASAAPHLPGCCCCFFLLLVSPVTCOALQDMVSPENSSSSFSFP 60
D b 1 MRKWILTRILPTLIR-----SCFHLVCLVGTISLAC-----NDM-SPEQT-ATSVNCSSP 49
Q y 61 SSAGRHVRSYNHILQ-GDVRWRKLFSTFYFLKIEKNGKVGSTKENCYPYSILEITTSVEIG 119
D b 50 E---RHTSRSDYMEGGDIRVRLFCRTQWYLIDRKGVKGTQEMKNSYNIEMIRTVAVG 106
Q y 120 VVAVKATNSYLANMKKGLYSGFNNDCLEKRIEENGNYNTYASFNQHNGROMYA 179
D b 107 IVAIKGVESEYLANMKKGLYAKKECNDCNFKELILENHNTYASAKWTHSGGMEFVA 166
Q y 180 LNKGGAPRRGQKTRRKNTSAHFLPMV 206
D b 167 LNKQGIPIVKGKTKKQKTAHFLPMAI 193

RESULT 5
FGF7_SHEEP
ID FGF7_SHEEP STANDARD; PRT; 194 AA.
AC P48808;
DT 01-FEB-1996 (Rel. 33, Created)
DT 01-FEB-1996 (Rel. 33, Last sequence update)
DT 01-NOV-1997 (Rel. 35, Last annotation update)
DE KERATINOCYTE GROWTH FACTOR PRECURSOR (KGF) (FIBROBLAST GROWTH FACTOR-7) (FGF-7) (HBGF-7).
DE FGF7 OR FGF-7.
GN Ovis aries (Sheep).
OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Cetartiodactyla; Ruminantia; Pecora; Bovidae;
OC Bovidae; Caprinae; Ovis.
OX NCBI_TaxID=9940;
RN [1]
RP
RN
RA Mitchell J.E.A., McInnes C.J.;
RL Submitted (OCT-1994) to the EMBL/GenBank/DBJ databases.
CC -!- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE
CC MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
CC -!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
CC
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DR EMBL; Z46236; CAA86306.1; -
 DR HSP; P05230; 2AFG.
 DR InterPro; IPR002209; -
 DR InterPro; IPR002348; -
 DR Pfam; PF00167; FGF; 1.
 DR PRINTS; PR00262; ILHGBF.
 DR PRINTS; PR00263; HGBFGF.
 DR PROSITE; PS00247; HGBF_FGF; 1.
 DR Growth factor; Mitogen; Signal.
 KW SIGNAL 1 31 BY SIMILARITY.
 FT CHAIN 32 194 KERATINOCYTE GROWTH FACTOR.
 FT CARBOHYD 45 45 N-LINKED (GLCNAC...) (POTENTIAL).
 SQ SEQUENCE 194 AA; 22448 MW; 80FAP4BC5B76F668 CRC64;

Query Match 42.3%; Score 475.5; DB 1; Length 194;
 Best Local Similarity 47.6%; Pred. No. 1.1e-35;
 Matches 100; Conservative 37; Mismatches 52; Indels 21; Gaps 7;

QY 1 MKRWILTHCASAPHLPGCCC-CFLLFLVSSVPVTCQALQGDVMSPE--ATNSSSSSF 57
 Db 1 MKRWILTWI-----LPSILYRSCFHICLVGTISLAC-----NDM-TPEQMATVNC--- 46

QY 58 SPSSAGRHVRYSNHLQ-GDVRWRKLFSTKYFLKIEKNGKVSCTKKENCYPYSILEITSV 116
 Db 47 ---SSPERHTRSDTWEGGDIRVRLFCRTQWYLRIDKRGKVGCTQEMKNYINMEIRTV 103

QY 117 EIGVAVKAINSYNYLAMNKKGLYKSEFNNDCKLKERIEENGYNTYASFVWQHNQROM 176
 Db 104 AVGIVAIGVESEYLLAMNKEGKLYAKKEDCNFKELLENHYNHYNTYASAKWTHSGEM 163

QY 177 YVALNGKGAPRRGOKTRRKNTSAHFLPMV 206
 Db 164 FVALNSKGVPRGKTKKQKTAHFLPMAI 193

RESULT 6
 FGF7_HUMAN
 ID FGF7_HUMAN STANDARD; PRT; 194 AA.
 AC P21781;
 DT 01-MAY-1991 (Rel. 18, Created)
 DT 01-MAY-1991 (Rel. 18, Last sequence update)
 DT 01-NOV-1997 (Rel. 35, Last annotation update)
 DE KERATINOCYTE GROWTH FACTOR PRECURSOR (KGF) (FIBROBLAST GROWTH FACTOR-7) (FGF-7) (HBGF-7).
 DE FGF7 OR KGF.
 GN Homo sapiens (Human).
 OS Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 [1]
 RN SEQUENCE FROM N.A., AND SEQUENCE OF 32-50.
 RP MEDLINE=89368897; PubMed=2475908; Taylor W.G., Rudikoff S.,
 RA Fleming T.P., Rubin J.S., Miki T., Ron D., Aaronson S.A.;
 RT "Human KGF is FGF-related with properties of a paracrine effector of
 RT epithelial cell growth.";
 RL Science 245:752-755(1989).
 [2]
 RN SEQUENCE FROM N.A.
 RP MEDLINE=92152720; PubMed=1664700;
 RA Aaronson S.A., Bottaro D.P., Miki T., Ron D., Finch P.W.,
 RA Fleming T.P., Ahn J., Taylor W.G., Rubin J.S.;
 RT "Keratinocyte growth factor. A fibroblast growth factor family member
 RT with unusual target cell specificity.";
 RL Ann. N.Y. Acad. Sci. 638:62-77(1991).
 [3]
 RN SEQUENCE OF 32-44.
 RP MEDLINE=89128865; PubMed=2915979;
 RA Rubin J.S., Osada H., Finch P.W., Taylor W.G., Rudikoff S.,
 RA Aaronson S.A.;
 RT "Purification and characterization of a newly identified growth
 RT factor specific for epithelial cells.";
 RL Proc. Natl. Acad. Sci. U.S.A. 86:802-806(1989).

CC -!- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE
 CC MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.
 CC -!- TISSUE SPECIFICITY: EPITHELIAL CELL.
 CC -!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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 CC -----
 DR EMBL; M60828; AAA63210.1; -
 DR EMBL; S81661; AAB21431.1; -
 DR PIR; A31453; A31453.
 DR PIR; A36301; A36301.
 DR HSP; P05230; 2AFG.
 DR MIN; 148180; -
 DR InterPro; IPR002209; -
 DR InterPro; IPR002348; -
 DR Pfam; PF00167; FGF; 1.
 DR PRINTS; PR00262; ILHGBF.
 DR PRINTS; PR00263; HGBFGF.
 DR PROSITE; PS00247; HGBF_FGF; 1.
 DR Growth factor; Mitogen; Signal.
 KW SIGNAL 1 31
 FT CHAIN 32 194 KERATINOCYTE GROWTH FACTOR.
 FT CARBOHYD 45 45 N-LINKED (GLCNAC...) (POTENTIAL).
 SQ SEQUENCE 194 AA; 22509 MW; B19192474E6049E2 CRC64;

Query Match 42.1%; Score 473.5; DB 1; Length 194;
 Best Local Similarity 46.9%; Pred. No. 1.7e-35;
 Matches 98; Conservative 38; Mismatches 54; Indels 19; Gaps 6;

QY 1 MKRWILTHCASAPHLPGCCC-CFLLFLVSSVPVTCQALQGDVMSPE--ATNSSSSSF 58
 Db 1 MKRWILTWIPLTLR-----SCFHICLVGTISLAC-----NDM-TPEQMATVNC--- 46

QY 59 SPSSAGRHVRYSNHLQ-GDVRWRKLFSTKYFLKIEKNGKVSCTKKENCYPYSILEITSVE 117
 Db 47 ---SSPERHTRSDTWEGGDIRVRLFCRTQWYLRIDKRGKVGCTQEMKNYINMEIRTV 104

QY 118 IGWVAVKAINSYNYLAMNKKGLYKSEFNNDCKLKERIEENGYNTYASFVWQHNQROM 177
 Db 105 VGIVAIGVESEYLLAMNKEGKLYAKKEDCNFKELLENHYNHYNTYASAKWTHSGEM 164

QY 178 YVALNGKGAPRRGOKTRRKNTSAHFLPMV 206
 Db 165 VALNQKGVPRGKTKKQKTAHFLPMAI 193

RESULT 7
 FGF7_RAT
 ID FGF7_RAT STANDARD; PRT; 194 AA.
 AC Q02135;
 DT 01-JUL-1993 (Rel. 26, Created)
 DT 01-JUL-1993 (Rel. 26, Last sequence update)
 DT 30-MAY-2000 (Rel. 39, Last annotation update)
 DE KERATINOCYTE GROWTH FACTOR PRECURSOR (KGF) (FIBROBLAST GROWTH FACTOR-7) (FGF-7) (HBGF-7).
 DE FGF7 OR FGF-7 OR KGF.
 GN Rattus norvegicus (Rat).
 OS Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Rattus.
 OX NCBI_TaxID=10116;
 [1]
 RN SEQUENCE FROM N.A.
 RP MEDLINE=91331931; PubMed=1869483;
 RA Yan G., Nikolopoulos S., Wang F., McKeehan W.L.;
 RT "Sequence of rat keratinocyte growth factor (heparin-binding growth
 RT factor type 7).";

In Vitro Cell. Dev. Biol. 27A:437-438(1991).

-!- FUNCTION: GROWTH FACTOR ACTIVE ON KERATINOCYTES. POSSIBLE MAJOR PARACRINE EFFECTOR OF NORMAL EPITHELIAL CELL PROLIFERATION.

-!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.

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EMBL; X56551; CAA39892.1; -
 HSSP; P09038; 2BPH.
 InterPro; IPR002209; -
 InterPro; IPR002348; -
 Pfam; PF00167; FGF; 1.
 PRINTS; PR00262; ILIHGFG.
 PROSITE; PR00263; HGGFFGF.
 PROSITE; PS00247; HBGF_FGF; 1.
 Growth factor; Mitogen; Signal.
 Growth factor; Mitogen; Signal.
 SIGNAL 1 31 BY SIMILARITY.
 CHAIN 32 194 KERATINOCYTE GROWTH FACTOR.
 CARBOHYD 45 45 N-LINKED (GLCNAC. . .) (POTENTIAL).
 CARBOHYD 149 149 N-LINKED (GLCNAC. . .) (POTENTIAL).
 SEQUENCE 194 AA; 22268 MW; 5242CDAC305CC8C1 CRC64;

Query Match 42.0%; Score 472.5; DB 1; Length 194;
 Best Local Similarity 47.3%; Pred. No. 2e-35;
 Matches 98; Conservative 40; Mismatches 54; Indels 15; Gaps 6;

QY 1 MKWILTHCASAPHLPGCCGCCGELLFLVSYVPVTCQALQDMVSPENATNSSSSFSSP 60
 DB 1 MKWILTRILEPTLYRP-----CFHLVCLVGTISLAC-----NDM-SPEQT-ATSYNCSSP 49

QY 61 SSAGRHVSYNHLO-GDVRWRKLFSTFKYPLKTEKNGKVSCTKENCPCYSILEITSVEIG 119
 DB 50 E---RHTRSVDYMEGGDIRVRLFCRTQWYLRIDKRGKVGKQEMRNSNIMEITVAVG 106

QY 120 VVAVKAINSYLLAMNKKGLYSKGFENNDCKLKERIENGNTYASFNWQHNGRMQYVA 179
 DB 107 IVAIKGVSEYLLAMNKKGLYSKGFENNDCKLKERIENGNTYASFNWQHNGRMQYVA 166

QY 180 LNKGAPRRGQKTRRKNTSAHFLPMV 206
 DB 167 LNKGLPVKCKTKKQKTAHFLPM 193

RESULT 8
 FGF3_CHICK
 ID FGF3_CHICK STANDARD; PRT; 220 AA.
 AC P48801;
 DT 01-FEB-1996 (Rel. 33, Created)
 DT 01-FEB-1996 (Rel. 33, Last sequence update)
 DT 01-NOV-1997 (Rel. 35, Last annotation update)
 DE FIBROBLAST GROWTH FACTOR-3 PRECURSOR (FGF-3) (HBGF-3).
 GN FGF3 OR FGF-3.
 OS Gallus gallus (Chicken).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Archosauria; Aves; Neognathae; Galliformes; Phasianidae; Phasianinae;
 OC Gallus.
 OX NCBI_TaxID=9031;
 [1]
 SEQUENCE FROM N.A.
 RC STRAIN=RHODE ISLAND RED; TISSUE=Embryo;
 RX MEDLINE=95309122; PubMed=7789270;
 RA Mahmood R., Kiefer P., Guthrie S., Dickson C., Mason I.;
 RT "Multiple roles for FGF-3 during cranial neural development in the chicken.";
 RL Development 121:1399-1410(1995).
 CC -!- FUNCTION: POTENT MITOGEN AND TRANSFORMING AGENT (BY SIMILARITY).

-!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.

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EMBL; Z47555; CAA87635.1; -
 HSSP; P09038; 1BFC.
 InterPro; IPR002209; -
 InterPro; IPR002348; -
 Pfam; PF00167; FGF; 1.
 PRINTS; PR00262; ILIHGFG.
 PROSITE; PR00263; HGGFFGF.
 PROSITE; PS00247; HBGF_FGF; 1.
 Growth factor; Mitogen; Signal; Glycoprotein.
 SIGNAL 1 220 POTENTIAL.
 CHAIN 66 66 FIBROBLAST GROWTH FACTOR-3.
 CARBOHYD 66 66 N-LINKED (GLCNAC. . .) (POTENTIAL).
 SEQUENCE 220 AA; 25050 MW; B15D41DIE551C5D5 CRC64;

Query Match 33.2%; Score 374; DB 1; Length 220;
 Best Local Similarity 46.7%; Pred. No. 1.5e-26;
 Matches 79; Conservative 30; Mismatches 48; Indels 12; Gaps 2;

QY 52 SSSSFSSPSAGRHVSYNHLOGDVNRKLFSTFKYPLKTEKNGKVSCTKENCPCYSIL 111
 DB 19 AATASPRAPRDAGGCGVYEHGLGAPRRRLYCATYHQLHPGGKINGTLEKNSVFSIL 78

QY 112 EITSVEIGVAVKAINSYLLAMNKKGLYSKGFENNDCKLKERIENGNTYAS--FNW 169
 DB 79 EITAVDGIIVAIKGLFSGRYLAMNKKGRLYASENYTECEFEVERHELGYNTYASRLYT 138

QY 170 QHNG-----ROMYVALNGKGAPRRGQKTRRKNTSAHFLPMV 208
 DB 139 VPSCASTKPKASAEWLWYVSVNGKGRPRGRGKTRRTQKSSSLFLPRVLD 187

RESULT 9
 FGF3_BRARE
 ID FGF3_BRARE STANDARD; PRT; 256 AA.
 AC P48802;
 DT 01-FEB-1996 (Rel. 33, Created)
 DT 01-FEB-1996 (Rel. 33, Last sequence update)
 DT 01-NOV-1997 (Rel. 35, Last annotation update)
 DE FIBROBLAST GROWTH FACTOR-3 PRECURSOR (FGF-3) (HBGF-3).
 GN FGF3 OR FGF-3.
 OS Brachydanio rerio (Zebrafish) (Zebra danio).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Actinopterygii; Neopterygii; Teleostei; Euteleostei; Ostariophysi;
 OC Cypriniformes; Cyprinidae; Rasbora; Danio.
 OX NCBI_TaxID=7955;
 [1]
 SEQUENCE FROM N.A.
 RX MEDLINE=96204005; PubMed=8622866;
 RA Kiefer P., Strahle U., Mason I., Dickson C.;
 RT "Secretion and mitogenic activity of zebrafish FGF3 reveal intermediate properties relative to mouse and Xenopus homologues.";
 RL Oncogene 12:1503-1511(1996).
 CC -!- FUNCTION: POTENT MITOGEN AND TRANSFORMING AGENT (BY SIMILARITY).
 CC -!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.

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CC EMBL; 248714; CAA88596.1; -
 DR HSSP; P09038; 2BFH.
 DR ZFIN; ZDB-GENE-980526-178; fgf3.
 DR InterPro; IPR002209; -
 DR InterPro; IPR002348; -
 DR Pfam; PF00167; FGF; 1.
 DR PRINTS; PR00262; ILLHBGF.
 DR PRINTS; PR00263; HBGFPGF.
 DR PROSITE; PS00247; HBGF_FGF; 1.
 KW Growth factor; Mitogen; Signal; Glycoprotein.
 FT SIGNAL 1 ?
 FT CHAIN 256
 SQ SEQUENCE 256 AA; 28923 MW; 289170BBDC CRC64;
 Query Match 33.2%; Score 373; DB 1; Length 256;
 Best Local Similarity 40.8%; Pred. No. 2.3e-26;
 Matches 86; Conservative 34; Mismatches 55; Indels 36; Gaps 4
 QY 25 LLLFLVSSVPTCOALQDMVSPENATNSSSSFSFSSPSS-----AGRHVRSYNHLQGD 76
 ||| ||| : : : : : ||| : : : : : ||| : : : : :
 DB 5 LLLLLLFDPSL-----EESLAPLRITPRAPCARQACDQRDRDAGRGVYEHLGGA 60
 ||| ||| : : : : : ||| : : : : : ||| : : : : :
 QY 77 VWRKLFSTFYFLKIEKNKGKQKENCPCYSILTEISVEIGVVAVKAINSYILAMNK 136
 ||| ||| : : : : : ||| : : : : : ||| : : : : :
 DB 61 PRRKLYCATKYHLQIHPNGKIDGSLSEENPLSILEITADVGVVAIKGLFSGRYLAAME 120
 ||| ||| : : : : : ||| : : : : : ||| : : : : :
 QY 137 KKKLYGSEKFNDDCKLERIEENGYNTYASFNQHNG-----RQ 175
 ||| ||| : : : : : ||| : : : : : ||| : : : : :
 DB 121 KGRLYASEVFNRECFERIEHELGYNTYAS---RHHATTOPPTGSGIGGSKRRASSKRO 177
 ||| ||| : : : : : ||| : : : : : ||| : : : : :
 QY 176 MYVALNGKAPRRGOKTRRKNKTSAHFLPMYV 205
 ||| ||| : : : : : ||| : : : : : ||| : : : : :
 DB 178 WYVYINGKRPGRGFKTRSDKASLFLPRVL 208
 ||| ||| : : : : : ||| : : : : : ||| : : : : :
 RESULT 10
 FGF3_XENLA STANDARD; PRT; 237 AA.
 ID FGF3_XENLA
 AC P36386;
 DT 01-JUN-1994 (Rel. 29, Created)
 DT 01-JUN-1994 (Rel. 29, Last sequence update)
 DT 01-NOV-1997 (Rel. 35, Last annotation update)
 DE FIBROBLAST GROWTH FACTOR-3 PRECURSOR (FGF-3) (HBGF-3) (INT-2).
 GN FGF3.
 OS Xenopus laevis (African clawed frog).
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
 OC Amphibia; Batrachia; Anura; Mesobatrachia; Pipoidae; Pipidae;
 OC Xenopodinae; Xenopus.
 OX NCBI_TaxID=8355;
 [1]
 RN SEQUENCE FROM N.A., AND PARTIAL SEQUENCE.
 RP MEDLINE=94038898; PubMed=8223431;
 RA Kiefer P., Mathieu M., Close J.M., Peters G., Dickson C.;
 RT "FGF3 from Xenopus laevis";
 RL EMBO J. 12:4159-4168(1993).
 [2]
 RN SEQUENCE OF 39-137 FROM N.A.
 RP TISSUE=Neurula;
 RA Tannahill D., Isaacs H.V., Close M.J., Peters G., Slack J.M.W.;
 RT "Developmental expression of the Xenopus int-2 (FGF-3) gene:
 activation by mesodermal and neural induction.";
 RL Development 115:695-702(1992).
 CC -!- FUNCTION: POTENT MITOGEN AND TRANSFORMING AGENT.
 CC -!- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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CC Modified and this statement is not generalizing.

RX MEDLINE-91193291; PubMed=1964688;
 RA Dickson C., Acland P., Smith R., Dixon M., Deed R., McAllan D.,
 RA Walther W., Fuller-Pace F., Kiefer P., Peters G.,
 RT "Characterization of int-2: a member of the fibroblast growth factor
 family.";
 RL J. Cell Sci. Suppl. 13:87-96(1990).
 CC - FUNCTION: COULD BE INVOLVED IN EAR DEVELOPMENT.
 CC - INDUCTION: BY INTEGRATION OF MOUSE MAMMARY TUMOR VIRUS.
 CC - SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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 CC
 DR EMBL; Y00848; CAA68767.1; -
 DR PIR; A23930; TVMSY2.
 DR HSSP; P09038; 2BFH.
 DR MGD; MGI:95517; Fgf3.
 DR InterPro; IPR002209; -
 DR InterPro; IPR002348; -
 DR Pfam; PF00167; FGF; 1.
 DR PRINTS; PR00262; IL1HBGF.
 DR PRINTS; PR00263; HBGFFGF.
 DR PROSITE; PS00247; HBGF_FGF; 1.
 KW Transforming protein; Oncogene; Growth factor; Mitogen; Signal;
 KW Glycoprotein.
 FT SIGNAL 1 17 POTENTIAL.
 FT CHAIN 18 245 INT-2 PROTO-ONCOGENE PROTEIN.
 FT CARBOHYD 65 65 N-LINKED (GLCNAC...)
 FT SEQUENCE 245 AA; 27214 MW; 70D94FD6A7837C79 CRC64;
 Query Match 31.4%; Score 353.5; DB 1; Length 245;
 Best Local Similarity 50.0%; Pred. No. 1.2e-24;
 Matches 78; Conservative 22; Mismatches 43; Indels 13; Gaps 3;
 QY 63 AGRHVSYNHLOGDVRWRKLFSTKYLKIEKNGKVSSTKENCPCYSILEITSVEIGVVA 122
 DB 29 AGRGGVYEHLLGGAPRRRLKATKYLHLQHPGSRVNGS-LENSAYSILEITAVEGVVA 87
 QY 123 VKAINSNNYLANMKKGLYSGKEFNNDCKLKERIEENGYNTYAS--FNQHNG----- 173
 DB 88 IGLFSGRYLANMKKGLYASDHYNAECFEVERIHELGYNTYASRLYRTGSSGPCAQRQP 147
 QY 174 ---RQMYVALNGKAPRRGOKTRKNTSAHFLPMV 206
 DB 148 GAQRWYVSVNGKGRPRGRGFKTRTQKSSLFPLRV 183
 RESULT 12
 ID FGF3_HUMAN STANDARD; PRT; 239 AA.
 AC P11487;
 DT 01-OCT-1989 (Rel. 12, Created)
 DT 01-OCT-1989 (Rel. 12, Last sequence update)
 DT 15-JUL-1999 (Rel. 38, Last annotation update)
 DE INT-2 PROTO-ONCOGENE PROTEIN PRECURSOR (FIBROBLAST GROWTH FACTOR-3)
 DE (FGF-3) (HBGF-3).
 GN FGF3 OR INT2.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Placenta;
 RA MEDLINE-89239468; PubMed=2470007;
 RX Brooks S., Smith R., Casey G., Dickson C., Peters G.,
 RT "Sequence organization of the human int-2 gene and its expression in

teratocarcinoma cells.";
 RT Oncogene 4:429-436(1989).
 CC - FUNCTION: COULD BE INVOLVED IN EAR DEVELOPMENT.
 CC - SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.
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 CC
 DR EMBL; X14445; CAA32615.1; -
 DR PIR; S04742; S04742.
 DR HSSP; P09038; 2BFH.
 DR MIM; 164950; -
 DR InterPro; IPR002209; -
 DR InterPro; IPR002348; -
 DR Pfam; PF00167; FGF; 1.
 DR PRINTS; PR00262; IL1HBGF.
 DR PRINTS; PR00263; HBGFFGF.
 DR PROSITE; PS00247; HBGF_FGF; 1.
 KW Transforming protein; Oncogene; Growth factor; Mitogen; Signal;
 KW Glycoprotein.
 FT SIGNAL 1 17 POTENTIAL.
 FT CHAIN 18 239 INT-2 PROTO-ONCOGENE PROTEIN.
 FT CARBOHYD 65 65 N-LINKED (GLCNAC...)
 FT SEQUENCE 239 AA; 26886 MW; 8DBEF17D2B2E3C63 CRC64;
 Query Match 30.4%; Score 342.5; DB 1; Length 239;
 Best Local Similarity 47.4%; Pred. No. 1.1e-23;
 Matches 74; Conservative 26; Mismatches 43; Indels 13; Gaps 2;
 QY 63 AGRHVSYNHLOGDVRWRKLFSTKYLKIEKNGKVSSTKENCPCYSILEITSVEIGVVA 122
 DB 29 AGRGGVYEHLLGGAPRRRLKATKYLHLQHPGSRVNGS-LENSAYSILEITAVEGVVA 87
 QY 123 VKAINSNNYLANMKKGLYSGKEFNNDCKLKERIEENGYNTYASFNQ----- 170
 DB 88 IGLFSGRYLANMKKGLYASDHYNAECFEVERIHELGYNTYASRLYRTVSTSTPGARRQP 147
 QY 171 HNGROMYVALNGKAPRRGOKTRKNTSAHFLPMV 206
 DB 148 SAERLWYVSVNGKGRPRGRGFKTRTQKSSLFPLRV 183
 RESULT 13
 ID FGF9_HUMAN STANDARD; PRT; 208 AA.
 AC P31371;
 DT 01-JUL-1993 (Rel. 26, Created)
 DT 01-OCT-1994 (Rel. 30, Last sequence update)
 DT 15-JUL-1998 (Rel. 36, Last annotation update)
 DE GLTA-ACTIVATING FACTOR PRECURSOR (GAF) (FIBROBLAST GROWTH FACTOR-9)
 DE (FGF-9) (HBGF-9).
 GN FGF9.
 OS Homo sapiens (Human).
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;
 OC Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.
 OX NCBI_TaxID=9606;
 RN [1]
 RP SEQUENCE FROM N.A.
 RC TISSUE=Foreskin;
 RX MEDLINE-93309459; PubMed=8321227;
 RA Miyamoto M., Naruo K.-I., Seko C., Matsumoto S., Kondo T.,
 RA Kurokawa T.,
 RT "Molecular cloning of a novel cytokine cDNA encoding the ninth member
 RT of the fibroblast growth factor family, which has a unique secretion
 RT property.";
 RL Mol. Cell. Biol. 13:4251-4259(1993).
 RN [2]

RESULT 14

FGF9_MOUSE	STANDARD;	PRT;	208 AA.
ID	FGF9_MOUSE		
AC	P54130;		
DT	01-OCT-1996 (Rel. 34, Created)		
DT	01-OCT-1996 (Rel. 34, Last sequence update)		
DT	01-NOV-1997 (Rel. 35, Last annotation update)		
DE	GLIA-ACTIVATING FACTOR PRECURSOR (GAF) (FIBROBLAST GROWTH FACTOR-9)		
DE	(FGF-9) (HBGF-9).		
DE	(FGF9 OR FGF-9).		
OS	Mus musculus (Mouse).		
OS	Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;		
OC	Mammalia; Eutheria; Rodentia; Sciurognathi; Muridae; Murinae; Mus.		
OX	NCBI_TaxID=10090;		
RN	[1]		
RN	SEQUENCE FROM N.A.		
RP	STRAIN=FVB;		
RC	MEDLINE=96139512; PubMed=8576175;		
RA	Santos-Ocampo S., Colvin J.S., Chellaiiah A.T., Ornitz D.M.;		
RT	"Expression and biological activity of mouse fibroblast growth		
RT	factor-9,"		
RL	J. Biol. Chem. 271:1726-1731(1996).		
RN	[2]		
RN	SEQUENCE FROM N.A.		
RP	MEDLINE=95385801; PubMed=7656983;		
RA	Seo M., Noguchi K.;		
RT	"Retinoic acid induces gene expression of fibroblast growth factor-9		
RT	during induction of neuronal differentiation of mouse embryonal		
RT	carcinoma P19 cells.,"		
RL	FEBS Lett. 370:231-235(1995).		
RN	[3]		
RN	SEQUENCE FROM N.A.		
RP	MEDLINE=96192599; PubMed=8619928;		
RA	Hecht D., Zimmerman N., Bedford M., Avivi A., Yayon A.;		
RT	"Identification of fibroblast growth factor 9 (FGF9) as a high		
RT	affinity, heparin dependent ligand for FGF receptors 3 and 2 but not		
RT	for FGF receptors 1 and 4."		
RL	Growth Factors 12:223-233(1995).		
CC	-1- FUNCTION: MAY HAVE A ROLE IN GLIAL CELL GROWTH AND DIFFERENTIATION		
CC	DURING DEVELOPMENT, GLIOSIS DURING REPAIR AND REGENERATION OF		
CC	BRAIN TISSUE AFTER DAMAGE, DIFFERENTIATION AND SURVIVAL OF		
CC	NEURONAL CELLS, AND GROWTH STIMULATION OF GLIAL TUMORS.		
CC	SUBCELLULAR LOCATION: SECRETED.		
CC	-1- SIMILARITY: BELONGS TO THE HEPARIN-BINDING GROWTH FACTORS FAMILY.		
CC	-----		
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CC	or email to license@isb-sib.ch).		

Query Match

100

us-09-284-100-2.rsp

Fri Jun 15 12:17:12 2001

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: June 15, 2001, 12:11:55 ; Search time 16.91 seconds
(without alignments)
936.979 Million cell updates/sec

Title: US-09-284-100-2
Perfect score: 1125
Sequence: 1 MWKWLTHCASAPPHLPGCC.....GQTRKNTSAHFLPMVVS 208

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 219241 seqs, 76174552 residues

Total number of hits satisfying chosen parameters: 219241

Minimum DB seq length: 0
Maximum DB seq length: 2000000000
Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : PIR.68.*
1: PIR1.*
2: PIR2.*
3: PIR3.*
4: PIR4.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	481.5	42.8	194	2 I48610	keratinocyte growth
2	475.5	42.3	194	2 S49501	keratinocyte growth
3	474.5	42.2	194	2 S26049	fibroblast growth
4	473.5	42.1	194	1 A36301	fibroblast growth
5	374	33.2	220	2 I50588	fibroblast growth
6	373	33.2	256	2 JC4627	fibroblast growth
7	361	32.1	237	1 S39582	transforming prote
8	353.5	31.4	245	1 TVM572	transforming prote
9	342.5	30.4	239	1 S04742	fibroblast growth
10	328	29.2	208	2 S66486	fibroblast growth
11	328	29.2	208	2 A48137	fibroblast growth
12	320	28.4	207	2 JC5941	fibroblast growth
13	317	28.2	207	2 JC5940	fibroblast growth
14	308	27.4	211	2 JC7353	fibroblast growth
15	307.5	27.3	208	2 JC7082	fibroblast growth
16	302	26.8	212	3 JC7511	fibroblast growth
17	301	26.8	98	2 B46289	fibroblast growth
18	297	26.4	98	2 C46289	keratinocyte growth
19	291	25.9	267	1 TVHUF5	fibroblast growth
20	285.5	25.4	266	2 S68144	fibroblast growth
21	282.5	25.1	264	2 A36207	fibroblast growth
22	269	23.9	96	2 D46289	keratinocyte growth
23	253.5	22.5	187	2 S23595	embryonic fibrobla
24	253	22.5	192	2 S54407	embryonic fibrobla
25	245.5	21.8	208	2 S14192	fibroblast growth
26	244.5	21.7	208	2 S20102	fibroblast growth
27	239	21.2	168	2 JG0184	fibroblast growth
28	237.5	21.1	194	2 I50710	fibroblast growth
29	203	18.0	146	1 S00185	basic fibroblast g

30	203	18.0	154	2 A31674	basic fibroblast g
31	203	18.0	154	2 C37360	basic fibroblast g
32	203	18.0	157	1 GKBOB	basic fibroblast g
33	203	18.0	210	2 A32398	acidic fibroblast
34	202	18.0	155	1 A33665	acidic fibroblast
35	200	17.8	155	2 S04147	acidic fibroblast
36	200	17.8	155	2 D37360	acidic fibroblast
37	198.5	17.6	206	1 TVHUS	fibroblast growth
38	198	17.6	155	1 A60721	acidic fibroblast
39	198	17.6	154	2 S31622	acidic fibroblast
40	197	17.5	155	1 GKBOA	acidic fibroblast
41	196	17.4	152	2 JH0476	acidic fibroblast
42	196	17.4	155	2 JW0055	acidic fibroblast
43	195	17.3	189	2 A48834	basic fibroblast g
44	194.5	17.3	155	1 A40117	basic fibroblast g
45	194	17.2	155	2 A60130	acidic fibroblast

ALIGNMENTS

RESULT 1

I48610

keratinocyte growth factor Fgf-7 - mouse

C:Species: Mus musculus (house mouse)

C:Date: 02-Jul-1996 #sequence_revision 02-Jul-1996 #text_change 16-Jul-1999

C:Accession: I48610; S33227

R:Wason, I.J.; Fuller-Pace, F.; Smith, R.; Dickson, C.

Mech. Dev. 45, 15-30, 1994

A:Title: FGF-7 (keratinocyte growth factor) expression during mouse development sugge

A:Reference number: I48610; MUID:94242659

A:Accession: I48610

A:Status: preliminary; translated from GB/EMBL/DBDJ

A:Molecule type: mRNA

A:Residues: 1-194 <RES>

A:Cross-references: EMBL:Z22703; NID:g297755; PIDN:CAA80403.1; PID:g297756

C:Superfamily: fibroblast growth factor

Query Match

Best Local Similarity 42.8%; Score 481.5; DB 2; Length 194;

Matches 99; Conservative 39; Mismatches 54; Indels 15; Gaps 6;

QY 1 MWKWLTHCASAPPHLPGCCCFLLFLVSSVPVTCQALGDMVSPSEATNSSSSSSP 60

Db 1 MRKWILTRILPTLLYR-----SCFHLVCLVGLISLAC-----NDM-SPEQT-ATSYNCSSP 49

QY 61 SSAGRVRSYNHLQ-GDVRWKLFTSTKYLKIEKNKGVSGTKKENCYPYSILEITVSVEIG 119

Db 50 E---RHTRSYDYMGGDIRVRLFCRTQWYLRIDKRGKVGKTQEMKNSYNIIMEITVAVG 106

QY 120 VVAVKAINSNIYLA MNKGLYSGKEFNNDCKLKEIEENGYNTYASFVWQHNGRMVYA 179

Db 107 IVAIKGVESEYLA MNKGLYAKKEDCNFKELIDENHNTYASAKWTHGGEMFYA 166

QY 180 LNKGAPRRGQTRKNTSAHFLPMVY 206

Db 167 LNKQGPVKGKTKKEQKTAHFLPNAI 193

RESULT 2

S49501

keratinocyte growth factor - sheep

C:Species: Ovis orientalis aries, Ovis ammon aries (domestic sheep)

C:Date: 20-Feb-1995 #sequence_revision 20-Feb-1995 #text_change 16-Jul-1999

C:Accession: S49501

R:Michell, J.E.A.; McInnes, C.J.

submitted to the EMBL Data Library, October 1994

A:Description: Cloning of a cDNA encoding ovine keratinocyte growth factor.

A:Reference number: S49501

A:Accession: S49501

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-194 <MIT>
 A:Cross-references: EMBL:Z46236; NID:g559503; PIDN:CAA86306.1; PID:g559504
 C:Superfamily: fibroblast growth factor

Query Match 42.3%; Score 475.5; DB 2; Length 194;
 Best Local Similarity 47.6%; Pred. No. 1.3e-35;
 Matches 100; Conservative 37; Mismatches 52; Indels 21; Gaps 7;
 QY 1 MKKWILTHCASAFPHLPGCC-CCFLLFLVSSVPTCOALGQDMVSP--ATNSSSSSF 57
 Db 1 MKKWILTWI-----LPSLLYRSCFHILCVGTISLAC-----NDM-TPEQMATVNC--- 46
 QY 58 SPSSAGRHVRVSYNHLQ-GDVRWRKLFSTFYFLKIEKNGKVSFGTKKENCPCYSILEITSV 116
 Db 47 ---SPERHTRSDYMEGDIIVRLFCRTQWYLRDKRGKVGTOEMKNYINMEIRTV 103
 QY 117 EIGVAVKAINSYYLAMNKKGLYSGKEFNNDCKLKERIEENGYNVYASFNWONGROM 176
 Db 104 AVGIVAIGVESEYLLAMNKKGLYAKKECNEDCNFKELILENHYNVYASAKWTHSGEM 163
 QY 177 YVALNGKAPRRGOKTRKNTSAHFLPMV 206
 Db 164 FVALNGKGVPRGKTKKEQKTAHFLPMAI 193

RESULT 3
 S26049
 fibroblast growth factor 7 precursor - rat
 N:Alternate names: keratinocyte growth factor
 C:Species: Rattus norvegicus (Norway rat)
 C:Date: 19-Mar-1998 #sequence_revision 19-Mar-1998 #text_change 16-Jul-1999
 C:Accession: S26049; S78446
 R:Van, G.; Nikoliaropoulos, S.; Wang, F.; McKeahan, W.L.
 In Vitro Cell. Dev. Biol. 27, 437-438, 1991
 A:Title: Sequence of rat keratinocyte growth factor (heparin-binding growth factor type
 A:Reference number: S26049
 A:Accession: S26049
 A:Molecule type: mRNA
 A:Residues: 1-194 <YAN>
 A:Cross-references: EMBL:X56551
 R:Van, G.
 submitted to the EMBL Data Library, February 1991
 A:Reference number: S78446
 A:Accession: S78446
 A:Molecule type: mRNA
 A:Residues: 1-16, 'p', 18-100, 'M', 102-123, 'Q', 125-150, 'S', 152-194 <YAM>
 A:Cross-references: EMBL:X56551; NID:g56707; PIDN:CAA39892.1; PID:g56708
 C:Superfamily: fibroblast growth factor
 C:Keywords: extracellular protein; growth factor; heparin binding; mitogen
 F:1-31/Domain: signal sequence #status predicted <Sig>
 F:32-194/Product: fibroblast growth factor 7 #status predicted <MAT>

Query Match 42.2%; Score 474.5; DB 2; Length 194;
 Best Local Similarity 48.1%; Pred. No. 1.6e-35;
 Matches 100; Conservative 39; Mismatches 52; Indels 17; Gaps 7;
 QY 1 MKKWILTHCASAFPHLP-GGCCCCFLLFLVSSVPTCOALGQDMVSPATNSSSSSFSS 59
 Db 1 MKRWILTRI-----LPTPLRYSCFHLVCLVGTISLAC-----NDM-SPEOT-ATSVNCS 48
 QY 60 PSSAGRHVRVSYNHLQ-GDVRWRKLFSTFYFLKIEKNGKVSFGTKKENCPCYSILEITSV 118
 Db 49 PE---RHRSTRSDYMEGDIIVRLFCRTQWYLRDKRGKVGTOEMKNYINMEIRTVAV 105
 QY 119 GVAVKAINSYYLAMNKKGLYSGKEFNNDCKLKERIEENGYNVYASFNWONGROMV 178
 Db 106 GIVAIGVESEYLLAMNKKGLYAKKECNEDCNFKELILENHYNVYASAKWTHSGEMEV 165
 QY 179 ALNGKAPRRGOKTRKNTSAHFLPMV 206
 Db 166 ALNGKGLPVGRGKTKKEQKTAHFLPMAI 193

RESULT 4
 A36301
 fibroblast growth factor 7 precursor [validated] - human
 N:Alternate names: keratinocyte growth factor
 C:Species: Homo sapiens (man)
 C:Date: 28-Mar-1991 #sequence_revision 07-Jul-1995 #text_change 08-Dec-2000
 C:Accession: A36301; A31453; A46289; I51958
 R:Finch, P.W.; Rubin, J.S.; Miki, T.; Ron, D.; Aaronson, S.A.
 Science 245, 752-755, 1989
 A:Title: Human KGF is FGF-related with properties of a paracrine effector of epithelial
 A:Reference number: A36301; MUID:89368897
 A:Accession: A36301
 A:Molecule type: mRNA
 A:Residues: 1-194 <FIN>
 A:Cross-references: GB:M60828; NID:g186738; PIDN:AAA63210.1; PID:g186739; GB:M25295
 R:Rubin, J.S.; Osada, H.; Finch, P.W.; Taylor, W.G.; Rudikoff, S.; Aaronson, S.A.
 Proc. Natl. Acad. Sci. U.S.A. 86, 802-806, 1989
 A:Title: Purification and characterization of a newly identified growth factor specif
 A:Reference number: A31453; MUID:89128865
 A:Accession: A31453
 A:Molecule type: protein
 A:Residues: 'X', 33-44 <RUB>
 A:Experimental source: embryonic lung cell fibroblast line M426
 R:Kelley, M.J.; Pech, M.; Seunanez, H.N.; Rubin, J.S.; O'Brien, S.J.; Aaronson, S.A.
 Proc. Natl. Acad. Sci. U.S.A. 89, 9287-9291, 1992
 A:Title: Emergence of the keratinocyte growth factor multigene family during the grea
 A:Reference number: A46289; MUID:93028449
 A:Accession: A46289
 A:Molecule type: DNA
 A:Residues: 97-194 <KE>
 A:Note: sequence extracted from NCBI backbone (NCBIN:115887, NCBIP:115889)
 R:Aaronson, S.A.; Bottaro, D.P.; Miki, T.; Ron, D.; Finch, P.W.; Fleming, T.P.; Ahn,
 Ann. N. Y. Acad. Sci. 638, 62-77, 1991
 A:Title: Keratinocyte growth factor. A fibroblast growth factor family member with un
 A:Reference number: I51958; MUID:92152720
 A:Accession: I51958
 A:Status: translated from GB/EMBL/DDBJ
 A:Molecule type: mRNA
 A:Residues: 1-194 <AAR>
 A:Cross-references: GB:S81661; NID:g245438; PIDN:AAB21431.1; PID:g245439
 C:Genetics:
 A:Gene: GDB:FGF7
 A:Cross-references: GDB:131444; OMIM:148180
 A:Map position: 15q13-15q22
 A:Note: the human genome contains about 16, intron-containing, partial copies of this
 C:Superfamily: fibroblast growth factor
 C:Keywords: extracellular protein; growth factor; heparin binding; mitogen
 F:1-31/Domain: signal sequence #status predicted <SIG>
 F:32-194/Product: fibroblast growth factor 7 #status experimental <MAT>

Query Match 42.1%; Score 473.5; DB 1; Length 194;
 Best Local Similarity 46.9%; Pred. No. 1.9e-35;
 Matches 98; Conservative 38; Mismatches 54; Indels 19; Gaps 6;
 QY 1 MKKWILTHCASAFPHLPCCCFLLFLVSSVPTCOALGQDMVSP--ATNSSSSSFSS 58
 Db 1 MKRWILTWILFTLTYR-----SCFHILCVGTISLAC-----NDM-TPEQMATVNC--- 46
 QY 59 SPSSAGRHVRVSYNHLQ-GDVRWRKLFSTFYFLKIEKNGKVSFGTKKENCPCYSILEITSV 117
 Db 47 ---SPERHTRSDYMEGDIIVRLFCRTQWYLRDKRGKVGTOEMKNYINMEIRTV 104
 QY 118 IGVAVKAINSYYLAMNKKGLYSGKEFNNDCKLKERIEENGYNVYASFNWONGROMV 177
 Db 105 VGIVAIGVESEYLLAMNKKGLYAKKECNEDCNFKELILENHYNVYASAKWTHSGEMF 164
 QY 178 VALNGKAPRRGOKTRKNTSAHFLPMV 206
 Db 165 VALNGKGLPVGRGKTKKEQKTAHFLPMAI 193

RESULT 5
 I50588
 fibroblast growth factor 3 - chicken
 C:Species: Gallus gallus (chicken)
 C>Date: 13-Sep-1996 #sequence_revision 13-Sep-1996 #text_change 17-Mar-2000
 C:Accession: I50588
 R:Mahmood, R.; Kiefer, P.; Guthrie, S.; Dickson, C.; Mason, I.
 Development 121, 1399-1410, 1995
 A:Title: Multiple roles for FGF-3 during cranial neural development in the chicken.
 A:Reference number: I50588; MUID:95309122
 A:Accession: I50588
 A:Status: preliminary; translated from GB/EMBL/DBJ
 A:Molecule type: mRNA
 A:Residues: 1-220 <MAH>
 A:Cross-references: EMBL:Z47555; NID:G623215; PIDN:CAA87635.1; PID:G623216
 C:Superfamily: fibroblast growth factor

Query Match 33.2%; Score 374; DB 2; Length 220;
 Best Local Similarity 46.7%; Pred. No. 2.le-26;
 Matches 79; Conservative 30; Mismatches 48; Indels 12; Gaps 2;
 QY 52 SSSSSPSSAGHRSYNNHLOGDVRKLFSTFYELKIEKNGKVSCTKENCPSYSL 111
 Db 19 AATASPRAPRDAGRGVYEHLCGAPRRKLYCATYHLOHPGKINGTLEKNSVFSIL 78
 QY 112 EITSVEIGVAVKAINSYYLANKKGLYSGKEFNNDCKLKERIEENGYNTYAS--FNW 169
 Db 79 EITAVDVGIVAIKGLFSGRYLANKKGRLYASENTECEFEVERHELGYNTYASRLYRT 138
 QY 170 OHNG-----ROMYVALNGKAGPRRGOKTRKNTSAHFLPMVHS 208
 Db 139 VPSGASTKKASAEERLWYVNGKGRPRGFKTRTQKSSLFLPRVLD 187

RESULT 6
 JC4627
 fibroblast growth factor 3 - zebra fish
 C:Species: Brachydanio rerio (zebra fish)
 C>Date: 10-May-1996 #sequence_revision 19-Jul-1996 #text_change 16-Jul-1999
 C:Accession: JC4627
 R:Kiefer, P.; Straehle, U.; Dickson, C.
 Gene 168, 211-215, 1996
 A:Title: The zebrafish Fgf-3 gene: cDNA sequence, transcript structure and genomic organization
 A:Reference number: JC4627; MUID:96194899
 A:Accession: JC4627
 A:Molecule type: mRNA
 A:Residues: 1-256 <KIE>
 A:Cross-references: EMBL:Z48714; NID:G971333; PIDN:CAA88596.1; PID:G971334
 A:Experimental source: embryo
 A:Note: The authors translated the codon TGG for residue 178 as His
 C:Comment: This factor belongs to the fibroblast growth factor family which have the fur
 otein is a cell signalling molecule and plays the roles during the early stages of devel
 C:Genetics:
 A:Gene: Fgf-3
 A:Introns: 93/2; 127/3
 C:Superfamily: fibroblast growth factor
 C:Keywords: embryo; fibroblast; growth factor

Query Match 33.2%; Score 373; DB 2; Length 256;
 Best Local Similarity 40.8%; Pred. No. 3.le-26;
 Matches 86; Conservative 34; Mismatches 55; Indels 36; Gaps 4;
 QY 25 LLLFLSVSPVTCALQDMVSPATNSSSSFSPPSS-----AGRHVSRYNNHLOGD 76
 Db 5 LLLLLSLFLPSL-----EESLAPRLTRPACARGAQCDPRQRDAGRGVYEHLCGA 60
 QY 77 VWRKLFSTFYELKIEKNGKVSCTKENCPSYSLTVEIGVAVKAINSYYLANKK 136
 Db 61 PRRKLYCATYHLOHPGKIDGSLSENNPLSILEITAVDVGIVAIKGLFSGRYLANNE 120

QY 137 KGKLYGSKFNNDDCKLKERIEENGYNTYASFNWONG-----RQ 175
 Db 121 KGRLYASEVFNRECEFLERHELGYNTYAS---RHHTQPPPTGSGIGGSKRRASSKQ 177
 QY 176 MYVALNGKAGPRRGOKTRKNTSAHFLPMV 206
 Db 178 WYVINGKGRPRRGFKTRSTDKASLFLPRVL 208
 RESULT 7
 S39582
 transforming protein int-2 - African clawed frog
 N:Alternate names: Fgf-3 protein; fibroblast growth factor 3
 C:Species: Xenopus laevis (African clawed frog)
 C>Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 10-Sep-1999
 C:Accession: S39582; S25713
 R:Kiefer, P.; Mathieu, M.; Close, M.J.; Peters, G.; Dickson, C.
 EMBO J. 12, 4159-4168, 1993
 A:Title: FGF3 from Xenopus laevis.
 A:Reference number: S39582; MUID:94038898
 A:Accession: S39582
 A:Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 1-237 <KIE>
 A:Cross-references: EMBL:Z25539; NID:G396830; PIDN:CAA80987.1; PID:G396831
 R:Tannahill, D.; Isaacs, H.V.; Close, M.J.; Peters, G.; Slack, J.M.W.
 Development 115, 695-702, 1992
 A:Title: Developmental expression of the Xenopus int-2 (FGF-3) gene: activation by me
 A:Reference number: S25713; MUID:93048831
 A:Accession: S25713
 A:Status: preliminary
 A:Molecule type: mRNA
 A:Residues: 39-137 <TAN>
 A:Cross-references: EMBL:X65237; NID:G64855; PIDN:CAA46341.1; PID:G64856
 C:Superfamily: fibroblast growth factor

Query Match 32.1%; Score 361; DB 1; Length 237;
 Best Local Similarity 43.1%; Pred. No. 3.4e-23;
 Matches 85; Conservative 29; Mismatches 67; Indels 16; Gaps 4;
 QY 25 LLLFLSVSPVTCALQDMVSPATNSSSSFSPPSS-----SSAGRHVSRYNNHLOGDVRWK 81
 Db 7 LLLLSFGCPQVSWAKRLER-EPKYPCSRGKGLCDPRQRDAGRGVYEHLCGAPNRK 65
 QY 82 LFSFTKYFLKIEKNGKVSCTKENCPSYSLTVEIGVAVKAINSYYLANKKGLY 141
 Db 66 LYCATKYHLOHPGKINGTLEKNSVFSILEITAVDVGIVAIKGLFSGRYLANNRGLY 125
 QY 142 GSKFNNDDCKLKERIEENGYNTYAS--FNWONG-----ROMYVALNGKAGPRRG 189
 Db 126 ASETYNPCEFEVERHELGYNTYASRLYRTVPSGAGTKKASAEERLWYVINGKGRPRRG 185
 QY 190 QKTRKNTSAHFLPMV 206
 Db 186 FKTRTQKSSLFLPRVL 202

RESULT 8
 TMST2
 transforming protein (int-2) - mouse
 C:Species: Mus musculus (house mouse)
 C>Date: 31-Dec-1989 #sequence_revision 31-Dec-1989 #text_change 18-Jun-1999
 C:Accession: A23930; S08157
 R:Moore, R.; Casey, G.; Brookes, S.; Dixon, M.; Peters, G.; Dickson, C.
 EMBO J. 5, 919-924, 1986
 A:Title: Sequence, topography and protein coding potential of mouse-int-2: a putative
 A:Reference number: A23930; MUID:86247582
 A:Accession: A23930
 A:Molecule type: DNA; mRNA
 A:Residues: 1-245 <MOO>
 A:Cross-references: GB:Y00848; GB:M26284; GB:X68450; NID:G52716; PIDN:CAA68767.1; PID
 R:Acland, P.; Dixon, M.; Peters, G.; Dickson, C.

Nature 343, 662-665, 1990
A:Title: Subcellular fate of the Int-2 oncoprotein is determined by choice of initiation
A:Reference number: S08157; MUID:90158795

A:Accession: S08157
A:Status: not compared with conceptual translation
A:Molecule type: mRNA
A:Residues: 'HSRAGLAGRVLPAPRLRETRAGAAAAGGRCAGM', 3-17 <ACL>
C:Genetics:
A:Gene: int-2
A:Map position: 7
A:Introns: 74/1; 108/3
C:Superfamily: fibroblast growth factor
C:Keywords: growth factor; transforming protein

Query Match 31.4%; Score 353.5; DB 1; Length 245;
Best Local Similarity 50.0%; Pred. No. 1.7e-24;
Matches 78; Conservative 22; Mismatches 43; Indels 13; Gaps 3;

QY 63 AGRHVSYNHLOGDVWRKLFSTFYFLKIEKNGKVSQTKKENCPSYLEITSVEIGVWA 122
DB 29 AGGGVYEHLLGAPRRKLYCATYHLQHPGSRVNGS-LENSAYSILEITAVEGVWA 87
QY 123 VKAINSNIYLLAMNKGKLYGSKFEFNNDCKLKERIENGNYNYAS--FNWQHG----- 173
DB 88 IKGLSGRYLLAMNKGRLYASDHNAECEFVERIHELGYNTYASRLYRTGSSGPGCAORQP 147

QY 174 ---ROMYVALNGKAPRGOKTRKNTSAHFLPMVY 206
DB 148 GAORPMYTVSYNGKRPGRGFKTRTKQSSFLPRVL 183

RESULT 9
S04742
fibroblast growth factor 3 precursor - human
N:Alternate names: transforming protein int-2
C:Species: Homo sapiens (man)
C:Date: 10-Sep-1999 #sequence_revision 10-Sep-1999 #text_change 29-Sep-1999
R:Brookes, S.; Smith, R.; Casey, G.; Dickson, C.; Peters, G.
Oncogene 4, 429-436, 1989
A:Title: Sequence organization of the human int-2 gene and its expression in teratocarcinoma
A:Reference number: S04742; MUID:89239468
A:Accession: S04742
A:Molecule type: DNA
A:Residues: 1-239 <BRO>
A:Cross-references: EMBL:X14445; NID:g33937; PIDN:CAA32615.1; PID:g312409
C:Genetics:
A:Gene: GDB:FGF3; INT2
A:Cross-references: GDB:120103; OMIM:164950
A:Map position: 11q13.3-11q13.3
A:Introns: 74/1; 108/3
C:Superfamily: fibroblast growth factor
C:Keywords: growth factor
F:1-17/Domain: signal sequence #status predicted <SIG>
F:18-239/Product: transforming protein (int-2) #status predicted <MAT>

Query Match 30.4%; Score 342.5; DB 1; Length 239;
Best Local Similarity 47.4%; Pred. No. 1.6e-23;
Matches 74; Conservative 26; Mismatches 43; Indels 13; Gaps 2;

QY 63 AGRHVSYNHLOGDVWRKLFSTFYFLKIEKNGKVSQTKKENCPSYLEITSVEIGVWA 122
DB 29 AGGGVYEHLLGAPRRKLYCATYHLQHPGSRVNGS-LENSAYSILEITAVEGVWA 87
QY 123 VKAINSNIYLLAMNKGKLYGSKFEFNNDCKLKERIENGNYNYASFNWQ----- 170
DB 88 IRGLSGRYLLAMNKGRLYASDHNAECEFVERIHELGYNTYASRLYRTGSSGPGCAORQP 147
QY 171 HNGROMYVALNGKAPRGOKTRKNTSAHFLPMVY 206
DB 148 SAERLMTVSYNGKRPGRGFKTRTKQSSFLPRVL 183

RESULT 10
S66486
fibroblast growth factor 9 - mouse
A:Species: Mus musculus (house mouse)
C:Date: 28-Oct-1996 #sequence_revision 13-Mar-1997 #text_change 20-Jun-2000
C:Accession: S66486
R:Seo, M.; Noguchi, K.
FEBS Lett. 370, 231-235, 1995
A:Title: Retinoic acid induces gene expression of fibroblast growth factor-9 during i
A:Reference number: S66486; MUID:95385801
A:Accession: S66486
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-208 <SEO>
A:Cross-references: EMBL:D38258; NID:g1107458; PIDN:BAA07410.1; PID:g1107459
C:Superfamily: fibroblast growth factor

Query Match 29.2%; Score 328; DB 2; Length 208;
Best Local Similarity 42.8%; Pred. No. 2.8e-22;
Matches 62; Conservative 33; Mismatches 48; Indels 2; Gaps 1;

QY 64 GRHVSYNHLOGDVWRKLFSTFYFLKIEKNGKVSQTKKENCPSYLEITSVEIGVWA 123
DB 48 GPAVTDLHLKLGILRRRLYCTGFHLEIFPNQIQTRKDHRSFGILEFISIAVGLVSI 107
QY 124 KAINSNIYLLAMNKGKLYGSKFEFNNDCKLKERIENGNYNYASFNWQH--NGROMYVALN 181
DB 108 RGVDLSGLYLGMEKELYGSEKLTQECVFRQFEENWNTYSSNLYKHVDTRGRYYVALN 167
QY 182 GKAPRRGOKTRKNTSAHFLPMVY 206
DB 168 KDGTPEGTETRRKHQKFTFLPRPV 192

RESULT 11
A48137
fibroblast growth factor 9 - human
N:Alternate names: glia-activating factor
C:Species: Homo sapiens (man)
C:Date: 21-Jan-1994 #sequence_revision 18-Nov-1994 #text_change 21-Jul-2000
R:Matsumoto, M.; Naruo, K.; Seko, C.; Matsumoto, S.; Kondo, T.; Kurokawa, T.
Mol. Cell. Biol. 13, 4251-4259, 1993
A:Title: Molecular cloning of a novel cytokine cDNA encoding the ninth member of the
A:Reference number: A48137; MUID:93309459
A:Accession: A48137
A:Status: preliminary
A:Molecule type: nucleic acid
A:Residues: 1-208 <MIY>
A:Cross-references: GB:D14838; NID:g391718; PIDN:BAA03572.1; PID:g391719
A:Experimental source: foreskin
A:Note: sequence extracted from NCBI backbone (NCBIN:134640, NCBI:134641)
C:Genetics:
A:Gene: GDB:FGF9
A:Cross-references: GDB:207221; OMIM:600921
A:Map position: 13q11-13q12
C:Superfamily: fibroblast growth factor

Query Match 29.2%; Score 328; DB 2; Length 208;
Best Local Similarity 42.8%; Pred. No. 2.8e-22;
Matches 62; Conservative 33; Mismatches 48; Indels 2; Gaps 1;

QY 64 GRHVSYNHLOGDVWRKLFSTFYFLKIEKNGKVSQTKKENCPSYLEITSVEIGVWA 123
DB 48 GPAVTDLHLKLGILRRRLYCTGFHLEIFPNQIQTRKDHRSFGILEFISIAVGLVSI 107
QY 124 KAINSNIYLLAMNKGKLYGSKFEFNNDCKLKERIENGNYNYASFNWQH--NGROMYVALN 181
DB 108 RGVDLSGLYLGMEKELYGSEKLTQECVFRQFEENWNTYSSNLYKHVDTRGRYYVALN 167

Query Match 27.38; Score 307.5; DB 2; Length 208;
Best Local Similarity 40.18; Pred. No. 2e-20;
Matches 63; Conservative 36; Mismatches 49; Indels 9; Gaps 2;
QY 52 SSSSFSSPSAGRHVRSYNHLOGDVRWRKLFSTKYFLKIEKNGKVGSGTKKENCYPYSIL 111
DB 43 SERLSRSAPS-----DLSHLQILRRRQLYCTGPHLQILPDGNYQGTQDHSREGIL 95
QY 112 EITSVEIGVAVKAINSNYYLAMNKGKLYGSKFEFNDCKLKERIEENGYNITYASFNQH 171
DB 96 EFISVAIGLVSIRGVDGTGLYLGMDKGEFGSEKITSECIFREQFEENWYNTYSSNLYKH 155
QY 172 --NGROMYVALNGCAPRCQKTRKNTSAHFLPNVY 206
DB 156 GDSGRYFVALNKDGTDRDGTFRKRHRQKFTHFLPRPV 192

Search completed: June 15, 2001, 12:12:40
Job time: 45 sec

GenCore version 4.5
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OM protein - protein search, using sw model

Run on: June 15, 2001, 12:11:55 ; Search time 19.72 Seconds
(without alignments)
602.939 Million cell updates/sec

Title: US-09-284-100-2
Perfect score: 1125
Sequence: 1 MNKWLTHCASFPHLPGCC.....GKTRKNTSAHFLPMVVS 208

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 390729 seqs, 57163235 residues

Total number of hits satisfying chosen parameters: 390729

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : A_Geneseq_0401.*
1: /SID56/gcgdata/geneseq/geneseq/AA1980.DAT.*
2: /SID56/gcgdata/geneseq/geneseq/AA1981.DAT.*
3: /SID56/gcgdata/geneseq/geneseq/AA1982.DAT.*
4: /SID56/gcgdata/geneseq/geneseq/AA1983.DAT.*
5: /SID56/gcgdata/geneseq/geneseq/AA1984.DAT.*
6: /SID56/gcgdata/geneseq/geneseq/AA1985.DAT.*
7: /SID56/gcgdata/geneseq/geneseq/AA1986.DAT.*
8: /SID56/gcgdata/geneseq/geneseq/AA1987.DAT.*
9: /SID56/gcgdata/geneseq/geneseq/AA1988.DAT.*
10: /SID56/gcgdata/geneseq/geneseq/AA1989.DAT.*
11: /SID56/gcgdata/geneseq/geneseq/AA1990.DAT.*
12: /SID56/gcgdata/geneseq/geneseq/AA1991.DAT.*
13: /SID56/gcgdata/geneseq/geneseq/AA1992.DAT.*
14: /SID56/gcgdata/geneseq/geneseq/AA1993.DAT.*
15: /SID56/gcgdata/geneseq/geneseq/AA1994.DAT.*
16: /SID56/gcgdata/geneseq/geneseq/AA1995.DAT.*
17: /SID56/gcgdata/geneseq/geneseq/AA1996.DAT.*
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20: /SID56/gcgdata/geneseq/geneseq/AA1999.DAT.*
21: /SID56/gcgdata/geneseq/geneseq/AA2000.DAT.*
22: /SID56/gcgdata/geneseq/geneseq/AA2001.DAT.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1125	100.0	208	18	Human fibroblast g
2	1125	100.0	208	19	Recombinant kerati
3	1125	100.0	208	19	Human keratinocyte
4	1125	100.0	208	19	Keratinocyte growt
5	1125	100.0	208	20	Human keratinocyte
6	1125	100.0	208	20	Human keratinocyte
7	1125	100.0	208	20	Human fibroblast g
8	1125	100.0	208	20	Human FGF-10 prote
9	1125	100.0	208	20	Human fibroblast g
10	1125	100.0	208	21	Human keratinocyte
11	1125	100.0	208	21	Fibroblast growth

12	1125	100.0	208	21	Bi0304
13	1125	100.0	208	21	Human keratinocyte
14	1125	100.0	208	22	Human fibroblast g
15	1125	100.0	243	21	B60201
16	1125	99.7	208	19	B58248
17	1122	99.7	208	19	W53792
18	1122	99.7	208	20	Y32895
19	1122	99.7	208	20	Y23761
20	1122	99.7	208	21	Bi0310
21	1116	99.6	208	19	W61733
22	1116	99.2	208	17	W00176
23	1104.5	98.2	206	22	B60213
24	1092.5	97.1	209	19	W57310
25	1088.5	96.8	215	18	W24049
26	914	81.2	174	19	W53793
27	914	81.2	174	20	Y32897
28	914	81.2	174	20	Y32896
29	914	81.2	174	21	Bi0311
30	914	81.2	174	21	Bi0312
31	914	81.2	174	21	Bi0313
32	909	80.8	184	20	Y32917
33	909	80.8	184	21	Bi0309
34	894	79.5	170	19	W52582
35	894	79.5	170	22	B60206
36	894	79.5	171	19	W53798
37	894	79.5	171	20	Y32908
38	894	79.5	171	21	Bi0324
39	890	79.1	170	19	W59054
40	890	79.1	170	19	W52597
41	890	79.1	170	19	W52592
42	890	79.1	170	19	W52593
43	890	79.1	170	19	W52594
44	890	79.1	170	19	W52596
45	889	79.0	170	19	W52591

ALIGNMENTS

RESULT 1
W24050
ID W24050 standard; Protein; 208 AA.
XX
AC W24050;
XX
DT 12-FEB-1998 (first entry)
XX Human fibroblast growth factor FGF-10.
DE Fibroblast growth factor; rat; human; recombinant DNA; bone disease;
KW wound healing; cartilage.
XX
OS Homo sapiens.
XX
PN WO9720929-A1.
XX
PD 12-JUN-1997.
XX
PF 06-DEC-1996; 96WO-JP03579.
XX
PR 24-JUL-1996; 96JP-0214378.
PR 07-DEC-1995; 95JP-0345689.
PR 28-MAR-1996; 96JP-0103240.
XX (SUMU) SUNITOMO PHARM CO LTD.
XX Itoh N, Katsumata T, Negoro T, Tagashira S;
XX WPI; 1997-319776/29.
XX DR N-ESDB; T77200.
XX Recombinant fibroblast growth factor FGF-10 and related DNA - useful
PT for the treatment of bone disease and for wound healing

XX PS Claim 1; Page 32-33; 51pp; Japanese.
XX CC The present sequence represents human fibroblast growth factor FGF-10.
XX CC Recombinant FGF-10 DNA, vectors, containing the DNA, and host cells,
XX CC containing the vectors, are useful for the recombinant production
XX CC of FGF-10. The recombinant FGF-10 is useful for the treatment of
XX CC diseases and injury of bone or cartilage, and as a wound healing
XX CC promoter.
XX PS Sequence 208 AA;

Query Match 100.0%; Score 1125; DB 18; Length 208;
Best Local Similarity 100.0%; Pred. No. 5.3e-112;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKWILTHCASFPHLPGCCCCFLLLFLVSSVPVTCQALGQDMVSPRATNSSSSFSSP 60;
DB 1 mkkwiltchcasafhlpgccccflillflvssvpvtcqlgqdmvspatnsssfssp 60
QY 61 SSAGRHVRSYNHLQGDVWRKLFSTFKYFLKIEKNGKVSCTKENCPSYLEITSVEIGV 120
DB 61 ssagrhrvsynhlqgdvwrklfstfkylkiekngkvsctkencpsyleitsveigv 120
QY 121 VAVKAINSNYILAMNKKGLYSGKEFNNDCKLKERIEENGYNTYASFNWOHNGRMVVAL 180
DB 121 vavkainsnyilamnnkglkysgkefnndcklkerieengyntyasfnwqhngrmvval 180
QY 181 NGKGAPRRGQKTRRKNTSAHFLPMVHVS 208
DB 181 ngkgaprrgqktrrkntsahflpmvhs 208

RESULT 2
W57264
ID W57264 standard; Protein; 208 AA.
AC W57264;
XX
XX 02-SEP-1998 (first entry)
XX Recombinant keratinocyte growth factor (KGF)-2 protein sequence.
XX Keratinocyte growth factor-2; KGF-2; variant; human; recombinant;
XX epithelial cell stimulation; burn; ulcer; inflammatory bowel disease;
XX lung damage; liver damage; pancreatic disorder; diabetes.
XX Homo sapiens.
XX Key Location/Qualifiers
XX Peptide 1..36
XX Protein 37..208
XX /note= "putative leader sequence"
XX /note= "mature KGF-2"
XX W09816642-AL.
XX
XX 23-APR-1998.
XX
XX 15-OCT-1997; 97WO-US18607.
XX
XX 11-DEC-1996; 96US-0033046.
XX 15-OCT-1996; 96US-0028493.
XX 06-DEC-1996; 96US-0032781.
XX
XX (AMGE-) AMGEN INC.
XX
XX Narhi LO, Osslund TD;
XX WPI; 1998-251289/22.
XX N-PSDB; V28937.
XX

PT New keratinocyte factor-2 variants - used for stimulating epithelial
PT cells for treating e.g. burns, ulcers, inflammatory bowel disease,
PT lung damage, liver damage or pancreatic disorders.
XX Claim 1; Fig 1-1A; 132pp; English.
XX This represents the recombinant human keratinocyte growth factor
XX (KGF)-2. The specification provides variants of mature KGF-2 shown in
XX W57265 to W57271 and W57305 to W57311. A prokaryotic or eukaryotic host
XX cell containing a vector comprising a polynucleotide encoding the KGF-2
XX variant operatively linked to an expression control sequence can be used
XX to produce the variants of KGF-2 by recombinant DNA techniques. The KGF-2
XX variants and derivatives can be used for the stimulation (including
XX cytoprotection, proliferation and differentiation), of epithelial cells
XX including the eye, ear, gums, hair, lung, skin, pancreas (endocrine and
XX exocrine), thymus, thyroid, urinary bladder, liver and gastrointestinal
XX tract. They can be used for treating e.g. burns and other partial and
XX full-thickness injuries in need of stimulation of adnexal structures
XX such as hair follicles, sweat glands, and sebaceous glands. They are
XX also useful for the treatment of lesions caused by epidermolysis
XX bullosa, chemotherapy-induced alopecia and male-pattern baldness,
XX gastric and duodenal ulcers, gut toxicity, inflammatory bowel diseases
XX and erosions of the gastrointestinal tract. They are useful in the
XX treatment of chemotherapy induced pulmonary fibrosis, damage caused by
XX viral hepatitis, lung injury, gum disease, salivary gland tissue damage,
XX ear drum damage, autoimmune diseases such as Sjogren's syndrome and
XX pancreatic disorders including diabetes (type I and type II) and
XX cystic fibrosis.
XX Sequence 208 AA;

Query Match 100.0%; Score 1125; DB 19; Length 208;
Best Local Similarity 100.0%; Pred. No. 5.3e-112;
Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
QY 1 MKKWILTHCASFPHLPGCCCCFLLLFLVSSVPVTCQALGQDMVSPRATNSSSSFSSP 60
DB 1 mkkwiltchcasafhlpgccccflillflvssvpvtcqlgqdmvspatnsssfssp 60
QY 61 SSAGRHVRSYNHLQGDVWRKLFSTFKYFLKIEKNGKVSCTKENCPSYLEITSVEIGV 120
DB 61 ssagrhrvsynhlqgdvwrklfstfkylkiekngkvsctkencpsyleitsveigv 120
QY 121 VAVKAINSNYILAMNKKGLYSGKEFNNDCKLKERIEENGYNTYASFNWOHNGRMVVAL 180
DB 121 vavkainsnyilamnnkglkysgkefnndcklkerieengyntyasfnwqhngrmvval 180
QY 181 NGKGAPRRGQKTRRKNTSAHFLPMVHVS 208
DB 181 ngkgaprrgqktrrkntsahflpmvhs 208
RESULT 3
W59052
ID W59052 standard; Protein; 208 AA.
XX W59052;
XX
XX 26-AUG-1998 (first entry)
XX Human keratinocyte growth factor-2 (KGF-2) protein.
XX Keratinocyte growth factor-2; KGF-2; epithelial cell production;
XX hepatitic cirrhosis; fulminant liver failure; gastric ulcer; diabetes;
XX duodenal ulcer; gut toxicity; inflammatory bowel disease; oesophagitis;
XX erosive gastritis; oesophageal reflux; gastrointestinal toxicity; human;
XX pancreatitis; cystic fibrosis; corneal degeneration; gum disease;
XX urinary bladder damage; eardrum damage; salivary gland damage;
XX autoimmune disease; Sjogren's Syndrome; sicca syndrome.
XX Homo sapiens.
XX

Db 121 vavkainsnyllamkkgklyskfndcklkerieengyntasyafnwhngmqmyval 180
 QY 181 NGKGAPRRGQKTRRKNTSAHFLPMVHVS 208
 Db 181 ngkgaprrgqktrrkntsahflpmvhs 208

RESULT 5
 Y32916
 ID Y32916 standard; Protein; 208 AA.
 XX AC Y32916;
 XX 03-NOV-1999 (first entry)
 XX Human keratinocyte growth factor, KGF-2, protein.

Keratinocyte growth factor; KGF-2; human; platelet; fibrinogen; albumin;
 globulin; total serum protein; blood; hypofibrinogenemia; cirrhosis;
 disseminated intravascular coagulation; thrombocytopenia; myelofibrosis;
 hypalbuminemia; posttransfusion purpura; metastatic tumour; anaemia;
 leukaemia; haemolytic syndrome; Zieve's syndrome; rheumatic disease;
 HELLP preclampsia syndrome; congenital rubella syndrome; systemic lupus
 Epstein-Barr infectious mononucleosis; thyrotoxicosis; uraemia; therapy;
 infection; tissue necrosis; vasculitis; ulcerative bowel disease;
 serositis; subacute bacterial endocarditis; liver disease; amyloidosis;
 congestive heart failure; constrictive pericarditis; nephrotic syndrome;
 cardiac valvular disease; hypoglobulinaemia; keratoconjunctivitis sicca.

Homo sapiens.
 WO9941282-A1.
 19-AUG-1999.
 12-FEB-1999; 99WO-US03018.
 30-DEC-1998; 98US-0114387.
 13-FEB-1998; 98US-0074585.
 (HUMA-) HUMAN GENOME SCI INC.

Jimenez P, Louie A, Mendrick D, Rampy MA, Russell D;
 WPI: 1999-527359/44.
 N-PSDB; Z11169.

Use of keratinocyte growth factor-2 to increase levels of platelets,
 fibrinogen, albumin, globulin and total serum protein

Disclosure; Fig 3; 33lpp; English.

This sequence represents the human keratinocyte growth factor-2 (KGF-2)
 protein. Fragments and mutants of this sequence are used in the methods
 of the invention, for increasing the level of platelets, fibrinogen,
 albumin, globulin, and total serum protein in the blood. KGF-2 can also
 be used to stimulate proliferation of salivary gland cells, lacrimal
 gland cells, sinus epithelium, and Goblet cells. The methods can also be
 used to treat hypofibrinogenemia caused by a cirrhosis, and disseminated
 intravascular coagulation (DIC). The methods can be used to treat
 thrombocytopenia and to alleviate hypalbuminaemia. These diseases are
 caused by: drug induced hypersensitivity, thrombocytopenia purpura,
 posttransfusion purpura, metastatic tumours in the bone, aplastic
 anaemia, myelofibrosis, leukaemia, haemolytic syndromes, cancer
 chemotherapy, Zieve's syndrome, sepsis, HELLP preclampsia syndrome,
 megaloblastic anaemia peritonitis, congenital rubella syndrome,
 Epstein-Barr infectious mononucleosis, systemic lupus, preclampsia,
 thyrotoxicosis, uraemia, rheumatic diseases, granulomatous processes,
 bacterial viral and parasitic infections, tissue necrosis, vasculitis,
 ulcerative bowel disease, serositis, subacute bacterial endocarditis,
 liver disease, amyloidosis, malnutrition, malignancy, congestive heart
 failure, constrictive pericarditis, cardiac valvular disease, nephrotic

CC syndrome, trauma and crush injuries, gastrointestinal and lymphatic
 CC fistulae, and protein-losing gastroenteropathies. The methods can also be
 CC used to treat hypoglobulinaemia, total protein loss, damage to the sinus
 CC epithelium, and can be used to increase proliferation of epithelial cells
 CC of the bladder or prostate, stimulate proliferation of the salivary gland
 CC cells and to increase Goblet cell proliferation for treating or
 CC preventing keratoconjunctivitis sicca.

XX Sequence 208 AA;

Query Match 100.0%; Score 1125; DB 20; Length 208;
 Best Local Similarity 100.0%; Fred. No. 5.3e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MWKWLTHCASFPHLPGCCGCCFLLLFLVSSVPVTCQALGDMVSPATNSSSSSFSP 60
 Db 1 mwkwilthcasafphlpgcccccflilflvssvptcqlgdmvspeatnsssssfsp 60
 QY 61 SSAGRHVRSYNNHQQDVRRKLFSTFKYFLKIEKNGKVSQTKKENCYPYSILEITSVEIGV 120
 Db 61 ssagrhrvrsynnhlqqdvrrwrlfstkylfkiekngkvsqtkkencypysileitsveigv 120
 QY 121 VAVKAINSYYLAMNKKGLYSGKFNNDCKLKERIEENGYNNTYASFNWHNGRMVVAL 180
 Db 121 vavkainsnyllamkkgklyskfndcklkerieengyntasyafnwhngmqmyval 180
 QY 181 NGKGAPRRGQKTRRKNTSAHFLPMVHVS 208
 Db 181 ngkgaprrgqktrrkntsahflpmvhs 208

RESULT 6
 Y32888
 ID Y32888 standard; Protein; 208 AA.
 XX AC Y32888;
 XX 03-NOV-1999 (first entry)
 XX Human keratinocyte growth factor, KGF-2, protein sequence.

Keratinocyte growth factor; KGF-2; human; platelet; fibrinogen; albumin;
 globulin; total serum protein; blood; hypofibrinogenemia; cirrhosis;
 disseminated intravascular coagulation; thrombocytopenia; myelofibrosis;
 hypalbuminaemia; posttransfusion purpura; metastatic tumour; anaemia;
 leukaemia; haemolytic syndrome; Zieve's syndrome; rheumatic disease;
 HELLP preclampsia syndrome; congenital rubella syndrome; systemic lupus
 Epstein-Barr infectious mononucleosis; thyrotoxicosis; uraemia; therapy;
 infection; tissue necrosis; vasculitis; ulcerative bowel disease;
 serositis; subacute bacterial endocarditis; liver disease; amyloidosis;
 congestive heart failure; constrictive pericarditis; nephrotic syndrome;
 cardiac valvular disease; hypoglobulinaemia; keratoconjunctivitis sicca.

Homo sapiens.
 WO9941282-A1.
 19-AUG-1999.
 12-FEB-1999; 99WO-US03018.
 30-DEC-1998; 98US-0114387.
 13-FEB-1998; 98US-0074585.
 (HUMA-) HUMAN GENOME SCI INC.

Jimenez P, Louie A, Mendrick D, Rampy MA, Russell D;

XX WPI; 1999-527359/44.
 DR N-PSDB; Z11095.
 XX
 PT Use of keratinocyte growth factor-2 to increase levels of platelets,
 PT fibrinogen, albumin, globulin and total serum protein
 XX
 PS Claim 1; Fig 1; 33pp; English.
 XX
 CC This sequence is the human keratinocyte growth factor-2 (KGF-2)
 CC protein. Fragments and mutants of this sequence are used in the methods
 CC of the invention, for increasing the level of platelets, fibrinogen,
 CC albumin, globulin, and total serum protein in the blood. KGF-2 can also
 CC be used to stimulate proliferation of salivary gland cells, lacrimal
 CC gland cells, sinus epithelium, and Goblet cells. The methods can also be
 CC used to treat hypofibrinogenemia caused by a cirrhosis and disseminated
 CC intravascular coagulation (DIC). The methods can be used to treat
 CC thrombocytopenia and to alleviate hypalbuminemia. These diseases are
 CC caused by: drug induced hypersensitivity, thrombocytopenia purpura,
 CC posttransfusion purpura, metastatic tumours in the bone, aplastic
 CC anaemia, myelofibrosis, leukaemia, haemolytic syndromes, cancer
 CC chemotherapy, Zieve's syndrome, sepsis, HELLIP preclampsic syndrome,
 CC megaloblastic anaemia peritonitis, congenital rubella syndrome,
 CC Epstein-Barr infectious mononucleosis, systemic lupus, preclampsia,
 CC thyrotoxicosis, uraemia, rheumatic diseases, granulomatous processes,
 CC bacterial viral and parasitic infections, tissue necrosis, vasculitis,
 CC ulcerative bowel disease, serositis, subacute bacterial endocarditis,
 CC liver disease, amyloidosis, malnutrition, malignancy, congestive heart
 CC failure, constrictive pericarditis, cardiac valvular disease, nephrotic
 CC syndrome, trauma and crush injuries, gastrointestinal and lymphatic
 CC fistulae, and protein-losing gastroenteropathies. The methods can also be
 CC used to treat hypoglobulinemia, total protein loss, damage to the sinus
 CC epithelium, and can be used to increase proliferation of epithelial cells
 CC of the bladder or prostate, stimulate proliferation of the salivary gland
 CC cells and to increase Goblet cell proliferation for treating or
 CC preventing keratoconjunctivitis sicca.
 XX Sequence 208 AA;

Query Match 100.0%; Score 1125; DB 20; Length 208;
 Best Local Similarity 100.0%; Pred. No. 5.3e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MWKWLTHCASAPHLPGCCCCFLLLFLVSSVPVTCQALGQDMVSPATNSSSSFSFP 60
 Db 1 mwkwlthcasafhlpgccccflflvssvpvtcqalqdmvspeatnssssfsfp 60
 QY 61 SSAGHRVRSYNHLQGDVVRWKLFSFTKYFLKIEKNGKVSCTKENCPCYSILEITSVEIGV 120
 Db 61 ssaghrvrsynhlqgdvvrwklfsftkyflkiekngkvsctkencpcysileitsveigv 120
 QY 121 VAVKAINSNYYLAMNKGKLYSGKEFNNDCKLKERIEENGYNTYASFNQHNGROMYVAL 180
 Db 121 vavkainsnyylamnkkgklysgkefnndcklkerieengyntyasfnqhngromyval 180
 QY 181 NGKAPRGGOKTRKNTSAHFLPMVVS 208
 Db 181 ngkagprggoktrkntsahflpmvvs 208

RESULT 7
 W84564
 ID W84564 standard; Protein: 208 AA.
 AC W84564;
 XX
 DT 31-MAR-1999 (first entry)
 XX Human fibroblast growth factor 10 (FGF-10).
 DE Human; fibroblast growth factor 10; FGF-10; regenerator; activator;
 KW digestive tract tissue; intractable digestive tract lesion;

KW inflammatory bowel disease; postgastroctomy disturbance;
 KW malabsorption syndrome.
 XX Homo sapiens.
 OS JP10330283-A.
 PN 15-DEC-1998.
 XX 30-MAY-1997; 97JP-0158079.
 XX 30-MAY-1997; 97JP-0158079.
 XX (SUMU) SUMITOMO SEIYAKU KK.
 XX WPI; 1999-135590/12.
 DR N-PSDB; X03346.
 XX New regenerator/activator for digestive tract tissue - useful for
 PT improving intractable digestive tract lesions such as inflammatory
 PT bowel disease, postgastroctomy disturbances and malabsorption
 PT syndrome
 XX Claim 2; Page 5; 7pp; Japanese.
 PS The present sequence represents a human fibroblast growth factor 10
 CC (FGF-10). The protein is used as a regenerator/activator for digestive
 CC tract tissue. The regenerator/activator can improve intractable
 CC digestive tract lesions such as inflammatory bowel disease,
 CC postgastroctomy disturbances and malabsorption syndrome.
 XX Sequence 208 AA;

Query Match 100.0%; Score 1125; DB 20; Length 208;
 Best Local Similarity 100.0%; Pred. No. 5.3e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MWKWLTHCASAPHLPGCCCCFLLLFLVSSVPVTCQALGQDMVSPATNSSSSFSFP 60
 Db 1 mwkwlthcasafhlpgccccflflvssvpvtcqalqdmvspeatnssssfsfp 60
 QY 61 SSAGHRVRSYNHLQGDVVRWKLFSFTKYFLKIEKNGKVSCTKENCPCYSILEITSVEIGV 120
 Db 61 ssaghrvrsynhlqgdvvrwklfsftkyflkiekngkvsctkencpcysileitsveigv 120
 QY 121 VAVKAINSNYYLAMNKGKLYSGKEFNNDCKLKERIEENGYNTYASFNQHNGROMYVAL 180
 Db 121 vavkainsnyylamnkkgklysgkefnndcklkerieengyntyasfnqhngromyval 180
 QY 181 NGKAPRGGOKTRKNTSAHFLPMVVS 208
 Db 181 ngkagprggoktrkntsahflpmvvs 208

RESULT 8
 W92312
 ID W92312 standard; Protein: 208 AA.
 AC W92312;
 XX
 DT 01-APR-1999 (first entry)
 XX Human FGF-10 protein.
 DE FGF-10; fibroblast growth factor; hypoglycaemia; hyperglycaemia.
 KW Homo sapiens.
 OS JP10330285-A.
 PN 15-DEC-1998.
 PD 15-DEC-1998.
 XX

Fri Jun 15 12:17:05 2001

PF 30-MAY-1997; 97JP-0158080.
 XX
 PR 30-MAY-1997; 97JP-0158080.
 CC (SUMU) SUMITOMO SEIYAKU KK.
 PA
 XX WPI; 1999-109362/10.
 DR N-PSDB; X01743.
 XX
 XX New hypoglycaemia agent containing fibroblast growth factor 10 -
 PT useful for improving hyperglycemia
 XX
 PS Claim 2; Page 5-6; 8pp; Japanese.
 CC This sequence represents a human fibroblast growth factor 10 (FGF-10)
 CC which is used as for improving hypoglycaemia as a novel hypoglycaemia
 CC agent. The hypoglycaemia agent improves hyperglycemia condition gradually
 CC without causing rapid hypoglycaemia.
 CC
 XX Sequence 208 AA;
 SQ

Query Match 100.0%; Score 1125; DB 20; Length 208;
 Best Local Similarity 100.0%; Pred. No. 5.3e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MWKWTILTHCASFPHLPGCCCCCFLLFLVSSVPVTCOALGDMVSPKATNSSSSSFSFP 60
 DB 1 mwkwilthcasafphlpgcccccflflvssvpvtcqlgqdmvspkatssssfssp 60
 QY 61 SSAGRHVRSYNHLOGDVRWRKLFSTKYLKIEKNGKVSCTKKENCPSYLSLEITSVEIGV 120
 DB 61 ssagrhrvsynhlogdvrwrklfsftkyflkiekngkvsctkkencpysileitsveigv 120
 QY 121 VAVKAINSNYYLAMNKKGLYGSKEFNNDCKLKERIEENGYNTYASFNWONGRQMYVAL 180
 DB 121 vavkainsnyylamnkkglygskefnndcklkerieengyntyasfnwqhngqrmymval 180
 QY 181 NGKGAPRRGQKTRRNTSAHFLPMVWHS 208
 DB 181 ngkgaprrgqktrrntsahflpmvwhs 208

RESULT 9
 W89412
 ID W89412 standard; Protein: 208 AA.
 XX
 AC W89412;
 XX
 DT 09-MAR-1999 (first entry)
 XX
 DE Human fibroblast growth factor 10.
 XX
 KW Human; fibroblast growth factor 10; FGF-10; KGF-2; hepatocyte;
 KW keratinocyte growth factor 2; protection; intractable liver lesion.
 XX
 OS Homo sapiens.
 XX JPL0330284-A.
 XX
 PD 15-DEC-1998.
 XX
 PF 30-MAY-1997; 97JP-0158081.
 XX
 PR 30-MAY-1997; 97JP-0158081.
 XX
 PA (SUMU) SUMITOMO SEIYAKU KK.
 XX
 XX WPI; 1999-101000/09.
 DR N-PSDB; W82018.
 XX
 XX New hepatocyte protecting agent - comprises fibroblast growth factor
 PT 10 or keratinocyte growth factor 2

XX Claim 2; Page 5-6; 8pp; Japanese.
 PS The present invention describes a protecting agent for hepatocytes. The
 CC protecting agent comprises fibroblast growth factor 10 (FGF-10) or
 CC keratinocyte growth factor 2 (KGF-2) as the active component. The
 CC present sequence represents human FGF-10. The protecting agent for
 CC hepatocytes is capable of improving intractable liver lesions.
 CC
 XX Sequence 208 AA;
 SQ

Query Match 100.0%; Score 1125; DB 20; Length 208;
 Best Local Similarity 100.0%; Pred. No. 5.3e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MWKWTILTHCASFPHLPGCCCCCFLLFLVSSVPVTCOALGDMVSPKATNSSSSSFSFP 60
 DB 1 mwkwilthcasafphlpgcccccflflvssvpvtcqlgqdmvspkatssssfssp 60
 QY 61 SSAGRHVRSYNHLOGDVRWRKLFSTKYLKIEKNGKVSCTKKENCPSYLSLEITSVEIGV 120
 DB 61 ssagrhrvsynhlogdvrwrklfsftkyflkiekngkvsctkkencpysileitsveigv 120
 QY 121 VAVKAINSNYYLAMNKKGLYGSKEFNNDCKLKERIEENGYNTYASFNWONGRQMYVAL 180
 DB 121 vavkainsnyylamnkkglygskefnndcklkerieengyntyasfnwqhngqrmymval 180
 QY 181 NGKGAPRRGQKTRRNTSAHFLPMVWHS 208
 DB 181 ngkgaprrgqktrrntsahflpmvwhs 208

RESULT 10
 B10293
 ID B10293 standard; Protein: 208 AA.
 XX
 AC B10293;
 XX
 DT 20-NOV-2000 (first entry)
 XX
 DE Human keratinocyte growth factor KGF-2 protein SEQ ID NO: 2.
 XX
 KW Human; keratinocyte growth factor; KGF-2; antidiabetic;
 KW antinflammatory; cytoprotective; dermatological; gastrointestinal;
 KW hepatic; respiratory; renal; cerebroprotective; mucositis; treatment;
 KW epithelial cell proliferation; inflammatory bowel disease; lung damage;
 KW liver disorder; diabetes; oral injury; gastrointestinal injury;
 KW gut toxicity; gastric; duodenal; epidermolysis bullosa; skin graft;
 KW skin disorder; renal failure; brain injury; intestinal fibrosis;
 KW proctitis; female reproductive tract disorder; pulmonary fibrosis;
 KW pneumonitis; pleural retraction; hemopoietic syndrome; myelotoxicity.
 XX
 OS Homo sapiens.
 XX
 FH Key
 FT Region
 FT /note= "specifically claimed in Claim 276"
 FT Region
 FT /note= "specifically claimed in Claim 256"
 FT Region
 FT /note= "specifically claimed in Claim 128a"
 FT Region
 FT /note= "specifically claimed in Claim 128b"
 FT Region
 FT /note= "specifically claimed in Claim 128c"
 FT Region
 FT /note= "specifically claimed in Claim 128d"
 FT Region
 FT /note= "specifically claimed in Claim 128e"
 FT Region
 FT /note= "specifically claimed in Claim 128f"
 FT Region
 FT /note= "specifically claimed in Claim 128f"

FT Region /note= "specifically claimed in Claim 128g"
 FT 36..195
 FT /note= "specifically claimed in Claim 128h"
 FT 36..196
 FT /note= "specifically claimed in Claim 128i"
 FT 36..197
 FT /note= "specifically claimed in Claim 128j"
 FT 36..198
 FT /note= "specifically claimed in Claim 128k"
 FT 36..199
 FT /note= "specifically claimed in Claim 128l"
 FT 36..200
 FT /note= "specifically claimed in Claim 128m"
 FT 36..201
 FT /note= "specifically claimed in Claim 128n"
 FT 36..202
 FT /note= "specifically claimed in Claim 128o"
 FT 36..203
 FT /note= "specifically claimed in Claim 128p"
 FT 36..204
 FT /note= "specifically claimed in Claim 128q"
 FT 36..205
 FT /note= "specifically claimed in Claim 128r"
 FT 36..206
 FT /note= "specifically claimed in Claim 128s"
 FT 36..207
 FT /note= "specifically claimed in Claim 128t"
 FT 36..208
 FT /note= "specifically claimed in Claim 235"
 FT 37..208
 FT /note= "specifically claimed in Claim 234"
 FT 38..208
 FT /note= "specifically claimed in Claim 104n"
 FT 39..208
 FT /note= "specifically claimed in Claim 104m"
 FT 40..208
 FT /note= "specifically claimed in Claim 104l"
 FT 41..208
 FT /note= "specifically claimed in Claim 104k"
 FT 42..208
 FT /note= "specifically claimed in Claim 104j"
 FT 43..208
 FT /note= "specifically claimed in Claim 104i"
 FT 44..208
 FT /note= "specifically claimed in Claim 104h"
 FT 45..208
 FT /note= "specifically claimed in Claim 104g"
 FT 46..208
 FT /note= "specifically claimed in Claim 104f"
 FT 47..208
 FT /note= "specifically claimed in Claim 104e"
 FT 48..208
 FT /note= "specifically claimed in Claim 104d"
 FT 49..208
 FT /note= "specifically claimed in Claim 104c"
 FT 50..208
 FT /note= "specifically claimed in Claim 104b"
 FT 51..208
 FT /note= "specifically claimed in Claim 104a"
 FT 63..208
 FT /note= "specifically claimed in Claim 83"
 FT 69..208
 FT /note= "specifically claimed in Claim 62"
 FT 73..208
 FT /note= "specifically claimed in Claim 41"
 FT 80..208
 FT /note= "specifically claimed in Claim 20"
 FT 93..208
 FT /note= "specifically claimed in Claim 16"
 FT 104..208
 FT /note= "specifically claimed in Claim 12"
 FT 123..208
 FT /note= "specifically claimed in Claim 8"

Region 138..208
 /note= "specifically claimed in Claim 4"
 US6077692-A.
 20-JUN-2000.
 13-FEB-1998; 98US-0023082.
 13-AUG-1996; 96US-0023852.
 28-FEB-1997; 97US-0039045.
 13-AUG-1997; 97US-0055561.
 05-JUN-1995; 95US-0461195.
 14-FEB-1995; 95WO-US01790.
 23-MAY-1997; 97US-0862432.
 13-AUG-1997; 97US-0910875.
 (HUMA-) HUMAN GENOME SCI INC.
 Mendrick D, Duan DR, Ni J, Jimenez P, Coleman TA, Gruber JR;
 Dillon PJ, Gentz RL, Ruben SM, Zhang J, Moore PA, Rumpy MA;
 WPI; 2000-441307/38.
 N-PSDB; A71203.
 Novel keratinocyte growth factor useful for promoting and accelerating wound healing, comprising at least 10 contiguous amino acids from a specific amino acid sequence -
 Claim 1; Fig 1A-C; 190pp; English.
 This invention describes a novel human keratinocyte growth factor, KGF-2 (I), which has antitumor, antidiabetic, antiinflammatory, cytoprotective, dermatological, gastrointestinal, hepatic, respiratory, renal and...
 cerebroprotective activity. (I) is useful for stimulating epithelial cell proliferation in patients suffering from wound, mucositis, ulcer such as venous stasis ulcer, diabetic ulcer and cubitus ulcer. (I) is also useful for treating inflammatory bowel disease, liver disorder, lung damage, diabetes, oral injury, gastrointestinal injury, gut toxicity, gastric ulcer, duodenal ulcer, epidermolysis bullosa, skin graft, skin disorder, renal failure, brain injury, breast tissue injury, urothelial damage, female reproductive tract disorder, intestinal fibrosis, proctitis, pulmonary fibrosis, pneumonitis, pleural retraction, hemopoietic syndrome and myelotoxicity. (I) is also useful for increasing the adherence of skin grafts to wound beds and to stimulate re-epithelialization from the wound bed to produce changes in hepatocyte proliferation, to reduce the side effects of gut toxicity, to regenerate skin in full and partial thickness skin defects, and to prevent and heal damage to lungs. KGF-2 shows enhanced activity, increased stability, higher yield and better solubility. This sequence represents the human KGF-2 protein described in the method of the invention.
 Sequence 208 AA;
 Query Match 100.0%; Score 1125; DB 21; Length 208;
 Best Local Similarity 100.0%; Pred. No. 5.3e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MWKWLITHCASAFPHLPGCCCCFLLILFLVSSVPVTCQALGQDMVSP EATNSSSSFSFP 60
 Db 1 mwkwllthcasafphlp9cccccfllilflvssvptcqlgqdmvspeatnsssfssp 60
 QY 61 SSAGRHVSYNHLOGDVVRWRLKFSFTKYLKIEKNKGVSTKKNCPYSILEITSEVIGV 120
 Db 61 ssagrhvrsynhlogdvvrwrlkfsftkylkieknkgvstkkncpysileitsveigv 120
 QY 121 VAVKAINSNVYLLAMNKKGLYSGKFNNDCKLKERIEENGYNTYASFNWQHNGRMVVAL 180
 Db 121 vavkainsnyyllamnkkgllysgkfndcklkerleengyntyasfwnqngmqmyval 180
 QY 181 NGKAPRRGOKTRRKNNTSAHFLPMVYHS 208
 |||||||||||||||||||||||||||||

us-09-284-100-2.rag

Fri Jun 15 12:17:05 2001

Db 181 ngkgaprrgqktrrntsaahflpmvhs 208

RESULT 11
B10301 ID B10301 standard; Protein: 208 AA.

XX AC B10301;
XX 20-NOV-2000 (first entry)
XX Fibroblast growth factor KGF2 protein SEQ ID NO: 20.

XX Human; keratinocyte growth factor; KGF-2; antiulcer; antidiabetic;
XX antiinflammatory; cytoprotective; dermatological; gastrointestinal;
XX hepatic; respiratory; renal; cerebroprotective; mucositis; treatment;
XX epithelial cell proliferation; inflammatory bowel disease; lung damage;
XX liver disorder; diabetes; oral injury; gastrointestinal injury;
XX gut toxicity; gastric; duodenal; epidermolysis bullosa; skin graft;
XX skin disorder; renal failure; brain injury; intestinal fibrosis;
XX proctitis; female reproductive tract disorder; pulmonary fibrosis;
XX pneumonitis; pleural retraction; hemopoietic syndrome; myelotoxicity;
XX fibroblast growth factor.

XX Unidentified.
XX OS
XX US6077692-A.
XX 20-JUN-2000.
XX 13-FEB-1998; 98US-0023082.
XX 13-AUG-1996; 96US-0023852.
XX 28-FEB-1997; 97US-0039045.
XX 13-AUG-1997; 97US-0055561.
XX 05-JUN-1995; 95US-0461195.
XX 14-FEB-1995; 95WO-US01790.
XX 23-MAY-1997; 97US-0862432.
XX 13-AUG-1997; 97US-0910875.
XX (HUMA-) HUMAN GENOME SCI INC.
XX Mendrick D, Duan DR, Ni J, Jimenez P, Coleman TA, Gruber JR;
XX Dillon PJ, Gentz RL, Ruben SM, Zhang J, Moore PA, Rumpy MA;
XX WPI: 2000-441307/38.
XX Novel keratinocyte growth factor useful for promoting and accelerating
XX wound healing, comprising at least 10 contiguous amino acids from a
XX specific amino acid sequence.

XX Disclosure: Fig 2A-C; 190pp; English.

XX This invention describes a novel human keratinocyte growth factor, KGF-2,
XX (I), which has antiulcer, antidiabetic, antiinflammatory, cytoprotective,
XX dermatological, gastrointestinal, hepatic, respiratory, renal and
XX cerebroprotective activity. (I) is useful for stimulating epithelial cell
XX proliferation in patients suffering from wound, mucositis, ulcer such as
XX venous stasis ulcer, diabetic ulcer and cubitus ulcer. (I) is also useful
XX for treating inflammatory bowel disease, liver disorder, lung damage,
XX diabetes, oral injury, gastrointestinal injury, gut toxicity, gastric
XX ulcer, duodenal ulcer, epidermolysis bullosa, skin graft, skin disorder,
XX renal failure, brain injury, breast tissue injury, urothelial damage,
XX female reproductive tract disorder, intestinal fibrosis, proctitis,
XX pulmonary fibrosis, pneumonitis, pleural retraction, hemopoietic syndrome
XX and myelotoxicity. (I) is also useful for increasing the adherence of
XX skin grafts to wound beds and to stimulate re-epithelialization from the
XX wound bed, to produce changes in hepatocyte proliferation, to reduce the
XX side effects of gut toxicity, to regenerate skin in full and partial
XX thickness skin defects, and to prevent and heal damage to lungs. KGF-2
XX shows enhanced activity, increased stability, higher yield and better
XX solubility. This sequence represents the fibroblast growth factor KGF2
XX which is described in the method of the invention.

XX Query Match 100.0%; Score 1125; DB 21; Length 208;
XX Best Local Similarity 100.0%; Pred. No. 5.3e-112;
XX Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
XX 1 MWKWLTHCASAPHLPGCCCCCFLILFLVSSVPVTCOALGQDMVSPDATSSSSSSP 60
XX 1 mwkwllthcasafhlpgccccccflilflvssvpvtcqlgqdmvspeatnsssssfsp 60
XX 61 SSAGRHVRSYHNLQGDVRRKLFSTFKYFLKIEKNGKVGSTKENCPCYSILEITSVEIGV 120
XX 61 ssagrhvrsyphlqgdvrrkflsfstkylfkiekngkvgstkkencpcysileitsveigv 120
XX 121 VAVKALNSYLLAMNKGKLYGSKENNDCKLKERIEENGYNFYAFNQHNGROMYVAL 180
XX 121 vavkainsnyllammkkgklygskenfndcklkerieengynfyasfnqhngromyval 180
XX 181 NGKGAPRRGQKTRRNTSAHFLPMVHS 208
XX 181 ngkgaprrgqktrrntsaahflpmvhs 208

RESULT 12
B10304 ID B10304 standard; Protein: 208 AA.
XX AC B10304;
XX 20-NOV-2000 (first entry)
XX Human keratinocyte growth factor KGF-2 protein SEQ ID NO: 24.
XX Human; keratinocyte growth factor; KGF-2; antiulcer; antidiabetic;
XX antiinflammatory; cytoprotective; dermatological; gastrointestinal;
XX hepatic; respiratory; renal; cerebroprotective; mucositis; treatment;
XX epithelial cell proliferation; inflammatory bowel disease; lung damage;
XX liver disorder; diabetes; oral injury; gastrointestinal injury;
XX gut toxicity; gastric; duodenal; epidermolysis bullosa; skin graft;
XX skin disorder; renal failure; brain injury; intestinal fibrosis;
XX proctitis; female reproductive tract disorder; pulmonary fibrosis;
XX pneumonitis; pleural retraction; hemopoietic syndrome; myelotoxicity.
XX Homo sapiens.
XX OS
XX US6077692-A.
XX 20-JUN-2000.
XX 13-FEB-1998; 98US-0023082.
XX 13-AUG-1996; 96US-0023852.
XX 28-FEB-1997; 97US-0039045.
XX 13-AUG-1997; 97US-0055561.
XX 05-JUN-1995; 95US-0461195.
XX 14-FEB-1995; 95WO-US01790.
XX 23-MAY-1997; 97US-0862432.
XX 13-AUG-1997; 97US-0910875.
XX (HUMA-) HUMAN GENOME SCI INC.
XX Mendrick D, Duan DR, Ni J, Jimenez P, Coleman TA, Gruber JR;
XX Dillon PJ, Gentz RL, Ruben SM, Zhang J, Moore PA, Rumpy MA;
XX WPI: 2000-441307/38.
XX Novel keratinocyte growth factor useful for promoting and accelerating
XX wound healing, comprising at least 10 contiguous amino acids from a
XX specific amino acid sequence.

PS Disclosure; Fig 3A-D; 190pp; English.

XX This invention describes a novel human keratinocyte growth factor, KGF-2
 CC (I), which has antiulcer, antidiabetic, antiinflammatory, cytoprotective,
 CC dermatological, gastrointestinal, hepatic, respiratory, renal and
 CC cerebroprotective activity. (I) is useful for stimulating epithelial cell
 CC proliferation in patients suffering from wound, mucositis, ulcer such as
 CC venous stasis ulcer, diabetic ulcer and cubitus ulcer. (I) is also useful
 CC for treating inflammatory bowel disease, liver disorder, lung damage,
 CC diabetes, oral injury, gastrointestinal injury, gut toxicity, gastric
 CC ulcer, duodenal ulcer, epidermolysis bullosa, skin graft, skin disorder,
 CC renal failure, brain injury, breast tissue injury, urothelial damage,
 CC female reproductive tract disorder, intestinal fibrosis, proctitis,
 CC pulmonary fibrosis, pneumonitis, pleural retraction, hemopoietic syndrome
 CC and myelotoxicity. (I) is also useful for increasing the adherence of
 CC skin grafts to wound beds and to stimulate re-epithelialization from the
 CC wound bed, to produce changes in hepatocyte proliferation, to reduce the
 CC side effects of gut toxicity, to regenerate skin in full and partial
 CC thickness skin defects, and to prevent and heal damage to lungs. KGF-2
 CC shows enhanced activity, increased stability, higher yield and better
 CC solubility. This sequence represents the human KGF-2 protein described in
 CC the method of the invention.

XX Sequence 208 AA;

Query Match 100.0%; Score 1125; DB 21; Length 208;
 Best Local Similarity 100.0%; Pred. No. 5.3e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MWKWLTHCASFPHLPGCCCCFLLLFLVSSVPVTCOALGDMVSPATNSSSSSFSSP 60.
 DB 1 mwkwilthcasafphlpgccccflllflvssvptcqlgqdmvspatnsssssfssp 60.
 QY 61 SSAGRHVRSYNHLOGDVRWRKLFSTFKYFLKIEKNGKVSCTKENCPSYILEITSVEIGV 120
 DB 61 ssagrhvrsynhlogdvrwrkflstfkyflkiekngkvsctkencpysileitsveigv 120
 QY 121 VAVKAINSYYLAMNKGKLYGSKFNNDCLEKRIEENGYNTRYASFNWOHNGROMYVAL 180
 DB 121 vavkainsnyylamnkkgklygskfnnndcklerieengyntnyasfnwqhngromyval 180
 QY 181 NGKGAPRRGOKTRRKNTSAHFPLPMVHS 208
 DB 181 ngkgaprrgoktrrkntsahflpmvhs 208

RESULT 13
 Y70688
 ID Y70688 standard; Protein; 208 AA.
 AC Y70688;
 XX
 DT 18-JUL-2000 (first entry)
 DE Human fibroblast growth factor-10 (fgf).
 KW Fibroblast growth factor; fgf-10; human; growth modulator; hedgehog; hh;
 KW patched; ptc; lung; therapeutic agent; antiproliferative; anticancer;
 KW vulnary; antirheumatic; hypotensive; anti-inflammatory; antiasthmatic;
 KW antiarthritic; tuberculostatic; antimicrobial; antiallergy; bronchitis;
 KW treatment; prevention; lung diseases; cystic fibrosis; asthma; cancer;
 KW emphysema; respiratory distress syndrome; tuberculosis; wound healing;
 KW lung transplantation.

OS Homo sapiens.
 XX
 PN W0200015246-A2.
 XX
 PD 23-MAR-2000.
 XX
 PF 10-SEP-1999; 99WO-US20500.

PR 11-SEP-1998; 98US-0099952.
 XX
 PA (HARD) HARVARD COLLEGE.
 XX
 PI Pepicelli C, Lewis P, McMahon AP;
 XX
 DR WPI; 2000-271252/23.
 DR N-PSDB; 252267.

Modulation of lung tissue or cell growth rate used for treating or
 preventing damage to lung tissue comprises ectopically contacting
 tissue with hedgehog therapeutic, patched therapeutic or fibroblast
 growth factor-10

Disclosure; Page 143; 143pp; English.

The patent discloses a method for modulating the growth state of
 epithelial or mesenchymal cells of the lung, by ectopically contacting
 the tissue with a therapeutic agent, that can effectively alter the rate
 of proliferation of cells. This agent can be selected from hedgehog (hh),
 patched (ptc) or fibroblast growth factor (fgf)-10 therapeutics. It
 involves a direct or indirect antagonism of patched-mediated regulation
 of gene expression. This method is useful for the treatment or prevention
 of lung diseases, like cancer, cystic fibrosis, bronchopneumoconiosis,
 bronchitis, bronchospasm, sarcoidosis, silicosis, eosinophilic granuloma,
 ankylosing spondylitis, emphysema, tuberculosis, respiratory distress
 syndrome, allergic rhinitis, asthma, pulmonary fibrosis and primary
 pulmonary hypertension. It is also used to control wound healing or other
 reformation processes in the lung and augment lung transplantation. The
 present sequence is the human fibroblast growth factor-10 (fgf). It is
 an important component of the hedgehog regulatory network present in
 the embryonic lung, that controls proliferation, pattern formation
 and differentiation.

XX Sequence 208 AA;

Query Match 100.0%; Score 1125; DB 21; Length 208;
 Best Local Similarity 100.0%; Pred. No. 5.3e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MWKWLTHCASFPHLPGCCCCFLLLFLVSSVPVTCOALGDMVSPATNSSSSSFSSP 60
 DB 1 mwkwilthcasafphlpgccccflllflvssvptcqlgqdmvspatnsssssfssp 60
 QY 61 SSAGRHVRSYNHLOGDVRWRKLFSTFKYFLKIEKNGKVSCTKENCPSYILEITSVEIGV 120
 DB 61 ssagrhvrsynhlogdvrwrkflstfkyflkiekngkvsctkencpysileitsveigv 120
 QY 121 VAVKAINSYYLAMNKGKLYGSKFNNDCLEKRIEENGYNTRYASFNWOHNGROMYVAL 180
 DB 121 vavkainsnyylamnkkgklygskfnnndcklerieengyntnyasfnwqhngromyval 180
 QY 181 NGKGAPRRGOKTRRKNTSAHFPLPMVHS 208
 DB 181 ngkgaprrgoktrrkntsahflpmvhs 208

RESULT 14
 B60201
 ID B60201 standard; Protein; 208 AA.
 XX
 AC B60201;
 XX
 DT 27-MAR-2001 (first entry)
 DE Human keratinocyte growth factor-2 (KGF-2), SEQ ID NO:2.
 KW Human; keratinocyte growth factor-2; KGF-2; wound healing; vulnary;
 KW epithelial cell proliferation; epidermal keratinocyte proliferation;
 KW soft tissue growth; ischaemic injury; skin disorder;
 KW skin graft adherence.

OS Homo sapiens.
 PN WO200072872-A1.
 XX 07-DEC-2000.
 PD
 XX 02-JUN-2000; 2000WO-US15186.
 XX
 XX 02-JUN-1999; 99US-0137448.
 XX
 XX 22-OCT-1999; 99US-0160913.
 XX
 XX (HUMA-) HUMAN GENOME SCI INC.
 PA (GENTZ/) GENTZ R L.
 PA (CHOP/) CHOPRA A.
 PA (KAUS/) KAUSHAL P.
 PA (SPIT/) SPITZNAGEL T.
 PA (UNSW/) UNSWORTH E.
 PA (KHAN/) KHAN F.
 XX
 XX Gentsz RL, Chopra A, Kaushal P, Spitznagel T, Unsworth E, Khan F;
 PI
 XX WPI: 2001-041105/05.
 XX N-PSDB; C92931.
 DR
 XX Pharmaceutical composition useful for stimulating epithelial cell
 PT proliferation and basal keratinocytes for wound healing comprises
 PT keratinocyte growth factor-2, in liquid or lyophilized forms -
 PT
 XX Disclosure; Fig 1A-C; 101pp; English.
 PS
 XX The invention relates to a pharmaceutical composition comprising
 XX 0.02-40 mg/ml (w/v) keratinocyte growth factor-2 (KGF-2) protein; a
 XX buffer having buffering capacity of pH 5-8 at 5-50 mM; a diluent to bring
 XX the composition to a designated volume; and a preservative such as
 XX m-cresol, chlorobutanol, or a mixture of methyl paraben and propyl
 XX paraben or their reaction products. The KGF-2 used in the composition of
 XX the invention is preferably a novel mutant selected from the KGF-2
 XX deletion mutants B60202 and B60204-B60214, and particularly the deletion
 XX mutant KGF-2 delta-33 (B60202). KGF-2 stimulates the proliferation of
 XX epithelial cells and epidermal keratinocytes but not mesenchymal cells
 XX such as fibroblasts. The compositions of the invention may therefore be
 XX used for promoting or accelerating soft tissue growth or wound healing,
 XX or for treating mucocystis or inflammatory bowel disease. The compositions
 XX may be used to promote the healing of both superficial and deep wounds,
 XX including those which involve damage of the dermis, and in those in whom
 XX healing is impaired (e.g., those with conditions such as diabetes,
 XX infection, immunosuppression, malnutrition, and ischaemic blockage or
 XX injury). The compositions may also be used to stimulate the healing of
 XX eye tissue wounds, dental tissue wounds, oral cavity wounds, vascular
 XX and dermal ulcers, burns, wounds associated with ischaemic injury,
 XX and skin disorders such as psoriasis and epidermolysis bullosa. The KGF-2
 XX compositions may additionally be used to increase the adherence of skin
 XX grafts to a wound bed, to stimulate re-epithelialisation from the wound
 XX bed, and to reduce the side effects of gut toxicity that result from
 XX radiation, chemotherapy treatments or viral infections. The compositions
 XX of the invention are stable over prolonged periods of storage, have
 XX increased KGF-2 pharmacological activity and/or facilitate the
 XX application or administration of KGF-2 in therapeutic regimens. The
 XX present sequence represents human KGF-2.
 XX
 XX Sequence 208 AA;

Query Match 100.0%; Score 1125; DB 22; Length 208;
 Best Local Similarity 100.0%; Pred. No. 5,3e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
 QY 1 MWKWLTHCASFPHLPGCCGCCFLLLFVSSVPVTCQALGQDMVSPFATNSSSSSFSSP 60
 DB 1 MWKWLTHCASFPHLPGCCGCCFLLLFVSSVPVTCQALGQDMVSPFATNSSSSSFSSP 60
 QY 61 SSAGHRVRSYHNLQGDVWRKLFSTFKLIEKNGKVSCTKKENCPSYSLTEITSVEIGV 120

DB 61 SSAGHRVRSYHNLQGDVWRKLFSTFKLIEKNGKVSCTKKENCPSYSLTEITSVEIGV 120
 QY 121 VAVKALNSNYLAKMKGKLYGSKFENNDCKLKERIEENGYNITYASFNNQHNCRMYVAL 180
 DB 121 VAVKALNSNYLAKMKGKLYGSKFENNDCKLKERIEENGYNITYASFNNQHNCRMYVAL 180
 QY 181 NGKAPRSGOKTRBKNTSAHELPMVHVS 208
 DB 181 NGKAPRSGOKTRBKNTSAHELPMVHVS 208
 RESULT 15
 B58248
 ID B58248 standard; Protein; 243 AA.
 XX
 AC B58248;
 XX
 DT 14-MAR-2001 (first entry)
 XX
 DE Lung cancer associated polypeptide sequence SEQ ID 586.
 XX
 KW Human; lung cancer associated protein; neuroprotective; cytostatic;
 KW cardioactive; immunomodulatory; muscular active; vulnerary;
 KW gastrointestinal; nephrotropic; antiinfective; gynecological;
 KW antibacterial; diagnosis; neural disorder; immune disorder; reproductive;
 KW proliferative disorder; wound healing; infectious disease.
 XX
 OS Homo sapiens.
 XX
 PN WO200055180-A2.
 XX
 PD 21-SEP-2000.
 XX
 PF 08-MAR-2000; 2000WO-US05918.
 XX
 PR 12-MAR-1999; 99US-0124270.
 XX
 PA (HUMA-) HUMAN GENOME SCI INC.
 PA (ROSE/) ROSEN C A.
 XX
 PI Ruben SM;
 XX
 DR WPI: 2000-587514/55.
 XX N-PSDB; F18124.
 XX
 PT Lung cancer associated gene sequences, referred to as lung cancer
 PT antigens, useful for treatment, prevention, and diagnosis of disorders
 PT such as lung cancer -
 XX
 PS Claim 11; Page 1079-1080; 1425pp; English.
 XX
 CC Polynucleotide sequences F17982 - F18424 encode human lung cancer
 CC associated proteins represented in B58106 - B58548. Lung cancer
 CC associated proteins and polynucleotide sequences, their agonists, and
 CC antagonists may have neuroprotective; cytostatic; cardioactive;
 CC immunomodulatory; muscular active general; vulnerary; gastrointestinal
 CC general; nephrotropic; antiinfective; gynecological; of antibacterial
 CC activity. The invention also includes antibodies specific for the protein
 CC or polynucleotide sequences. The lung cancer associated polynucleotide
 CC sequences may be used for detection of lung cancer, chromosome
 CC identification, as chromosome markers, and for numerous other diagnostic
 CC or research purposes. The proteins may be used to treat disorders such as
 CC cardiovascular, renal, and proliferative disorders. The proteins may also
 CC be used in the treatment of wounds and infectious diseases
 CC Polynucleotide sequences F18425 - F18433 and peptide B58549 are used in
 CC the course of the invention for the identification and characterisation
 CC of the polynucleotide and protein sequences.
 XX
 XX Sequence 243 AA;

Query Match: 100.0%; Score 1125; DB 21; Length 243;
 Best Local Similarity 100.0%; Pred. No. 6.6e-112;
 Matches 208; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MWKWLTHCASFPHLPGCCCCCFLLFLVSSVPVTCQALGQDMVSPDATNSSSSSFSSP 60
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 36 mwkwllthcasafphlpgcccccflflvssvpvtcqaigqdmvspeatnsssssfssp 95
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||

QY 61 SSAGRHRVRSYNHLOGDVWRKLFSTKYFLKIEKNKGVSQTKKENCPCYSILEITSVEIGV 120
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 96 ssagrhrvrsynhlogdvwrklfsftkyflkieknkgvsgtkkencpcysileitsveigv 155
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||

QY 121 VAVKAINSYYLAMNKKKLYGSKFNFNDCKLKERIEENGYNITYASFNWOHNGROMYVAL 180
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 156 vavkainsnyylamnkkglygskfnndcklkerieengyntiyasfnwqhngromyval 215
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QY 181 NGKGAPRRGQKTRRKNTSAHFLPMVHVS 208
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
 Db 216 ngkgaprrgqktrrkntsahflpmvhvs 243
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Search completed: June 15, 2001, 12:12:20
 Job time: 25 sec

